

ENCYCLOPEDIA OF

Case Study Research

EDITED BY Albert J. Mills Gabrielle Eurepos Elden Wiebe volume 1

ENCYCLOPEDIA OF

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volume



Los Angeles | London | New Delhi Singapore | Washington DC

A SAGE Reference Publication

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For information:



SAGE Publications, Inc. 2455 Teller Road Thousand Oaks, California 91320 E-mail: order@sagepub.com

SAGE Publications Ltd. 1 Oliver's Yard 55 City Road London EC1Y 1SP United Kingdom

SAGE Publications India Pvt. Ltd. B 1/I 1 Mohan Cooperative Industrial Area Mathura Road, New Delhi 110 044 India

SAGE Publications Asia-Pacific Pte. Ltd. 33 Pekin Street #02-01 Far East Square Singapore 048763

Printed in the United States of America

Library of Congress Cataloging-in-Publication Data

Encyclopedia of case study research/edited by Albert J. Mills, Gabrielle Durepos, and Elden Wiebe.

Includes bibliographical references and index.

ISBN 978-1-4129-5670-3 (cloth)

- 1. Social sciences—Research—Methodology—Encyclopedias. 2. Case method—Encyclopedias.
- I. Mills, Albert J., 1945- II. Durepos, Gabrielle. III. Wiebe, Elden.

H62.E582 2010 001.4′32—dc22

2009012391

This book is printed on acid-free paper.

09 10 11 12 13 10 9 8 7 6 5 4 3 2 1

Publisher:Rolf A. JankeAcquisitions Editor:Jim Brace-ThompsonEditorial Assistant:Michele ThompsonDevelopmental Editor:Carole MaurerReference Systems Manager:Leticia M. GutierrezReference Systems Coordinator:Laura NottonProduction Editor:Kate Schroeder

Copy Editors: Kristin Bergstad, Kathy Anne Savadel

Typesetter: C&M Digitals (P) Ltd.

Proofreaders: Sandy Zilka Livingston, Anne Rogers

Indexer:Julie GraysonCover Designer:Bryan FishmanMarketing Manager:Amberlyn McKay

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About the Editors

Albert J. Mills, PhD (professor, management), is Director of the PhD (management) program at Saint Mary's University (Nova Scotia, Canada). Leaving school at 15, his early images of organization—of frustration, power disparities, conflict, and sexually segregated work—were experienced through a series of unskilled jobs and given broader meaning through campaigns for peace, social justice, and human liberation. An early concern with discrimination led him to an interest in the relationship between knowledge (how a sense of self is developed), history (the contexts in which selves are constructed), and human liberation (how we are constrained by contextualized knowledge). He has pursued this focus through active involvement in a series of scholarly organizations, and more than 250 publications, culminating in work on a book (with Gabrielle Durepos) on ANTi-history—a liberationist approach to (past) knowledge.

Mills's feminist work ranges from involvement on university equity committees, leadership roles in the Gender and Diversity in Organizations divisions of the Academy of Management (AoM) and the Administrative Sciences Association of Canada (ASAC), and membership on the editorial boards of Equal Employment International and Gender, Work and Organization (associate editor). His books on gender and diversity include Gendering Organizational Analysis (1992), Managing the Organizational Melting Pot (1997), Gender, Identity, and the Culture of Organizations (2002), Identity Politics at Work (2004), and Sex, Strategy, and the Stratosphere: The Gendering of Airline Cultures (2006).

Mills's commitment to social change has led him to involvement in Critical Management Studies (CMS), as stream organizer at several international CMS conferences, and as chair of the CMS Division of the Academy of Management. He is currently on the editorial boards of *Organization*, *Tamara* (*Critical Postmodern Studies*), the *Canadian Journal of Administrative Sciences* (as CMS editor), and the *Journal of Workplace Rights*. His books in the field include *Organizational Rules* (1991), *Reading Organization Theory* (1995, 1999, 2005), and *Organizational Behaviour in a Global Context* (2007).

Finally, Mills's interest in knowledge has led him to explorations of management education and the role of research strategies, including historiography, case study, and postpositivist research methods. In terms of management education, he has served as an active researcher and executive member of several organizations, including ASAC (as president), the Atlantic Schools of Business, and the International Federation of Scholarly Associations of Management. In terms of research strategies, he is currently on the editorial boards of Qualitative Research in Management and Organizations (associate editor) and Management and Organizational History, and is completing two books—Business Research Methods and Darkside of Business Case Studies, which explores the use of teaching with cases. He is also engaged in a series of ongoing case studies and histories of airline companies, and histories of management thought and scholarly associations in North America.

Gabrielle Durepos is an assistant professor at St. Francis Xavier University in Nova Scotia, Canada, where she teaches organizational behavior. Growing up in a 20th-century Western society that saw the rise of dominant grand narratives, Durepos has

been continuously fascinated by the process in which knowledge assumes a status of "truth" and the subsequent potential of that knowledge to govern an entire society's meaning-making activities. The central strand that bounds all of her research interests is "knowledge," including knowledge production, legitimation, and dispersion. Her research interests are far-ranging and include history (knowledge of the past) and historiography (how one creates knowledge of the past), the sociology of knowledge, epistemology, the philosophy of the natural sciences, the cold war and its influence on management thought and knowledge, organizational ethics (a collective shared knowledge of what are deemed "good" and "bad" behaviors in organizations), and the development of methodologies.

Durepos has recently been engaged in the crafting of an alternative approach to historiography that offers the potential to craft organizational histories, as well as to historicize research and knowledge. Termed ANTi-history, the historiographic approach has been developed through meticulous archival research and offers scholars specific advice on the rigorous use of the archive. Though the present application of ANTi-history is based on archival materials from the Pan American Airways archive at the Otto Richter Library, she and Albert Mills have planned its future application in terms of theorizing the influence of the cold war (as based on archival materials from the Tamiment Library) on management thought in Canada and the United States.

Durepos has published her work in peer-reviewed journals, including Management & Organizational History and Journal of Management History. She has played an active role in the organization of the Atlantic Schools of Business conference and is an associate editor for the Canadian Journal of Administrative Sciences.

Elden Wiebe, PhD, is an associate professor of business, department of management and commerce, The King's University College, Edmonton, Alberta, Canada. He is currently developing and combining three central research interests. Organizational change is one central research focus, an interest that grew from having worked in contexts where significant organizational change

was desperately needed but never undertaken, and where significant organizational change had occurred only to be reversed within a few years, thereby again incurring the same problems that the original change had resolved. Temporal embeddedness is a second research focus, specifically time in the context of organizing, organizations, and organizational change. Observing and personally experiencing the tyranny of the clock in human relations has led him to pursue understandings of time that extend beyond the singular expression of time as a technology symbolized by the clock. His third research focus is spirituality, which stems from his long-standing involvement in Christian spirituality, developed over years of participation in organizations dedicated to addressing justice, human well-being, and the spirit. This has led him to research the growing phenomenon of spirituality in the workplace.

Wiebe's recent work has combined his interests in organizational change and time. His research investigates individual managerial temporal sensemaking and how it affects managers' implementation of change and their individual response to the change as they construct it. This work is the focus of his recently completed dissertation. An earlier version of the theory chapter from the dissertation won the Doctoral Student Scholarship at the Future of Time in Management and Organizations conference (INSEAD), sponsored by the International Network for Time in Management and Organization, the Center for Creative Inquiry located in San Francisco, and the Organizational Behavior and Organizational Development and Change divisions of the Academy of Management. Work with colleagues on investigation of organizational change (methodology) has been published in R. Lunes, A. Langley, and I. Stensaker (Eds.), Handbook of Organizational Change and Learning. His current work on time/temporality and change examines how the relationship between family physicians and patients is being shaped by the emphasis on efficiency, a phenomenon based in clock time, in the context of increasing wait times within publicly funded healthcare services. Work with colleagues on the regionalization of healthcare services has been published in Healthcare Quarterly.

Wiebe's commitment to spirituality has led to combining his interests in spirituality and organizational change. He is currently involved in a Social Sciences and Humanities Research Council–funded grant examining why and how spirituality is incorporated into the workplace, and what effect it has on employees and the workplace.

His initial work with colleagues has been published in the *Journal of Management Inquiry*.

Wiebe is a member of the Academy of Management and the Administrative Sciences Association of Canada. He is also an active supporter of the Center for Spirituality and the Workplace at Saint Mary's University.

Contributors

Iiris Aaltio University of Jyväskylä, Finland

Clem Adelman
Independent Scholar

Maria Aggestam Lund University, Sweden

Annette J. Ahern St. Francis Xavier University, Nova Scotia

Rafael Alcadipani Fundação Getulio Vargas—Escola de Administração de Empresas de São Paulo

Isabel Altamirano-Jimenez *University of Alberta*

John Amis
University of Memphis

Thillai Rajan Annamalai Indian Institute of Technology Madras

Maribel Aponte *University of Puerto Rico, EducArTec, Inc.*

Marie-José Avenier Université Pierre Mendès France-Grenoble

J. I. (Hans) Bakker University of Guelph, Ontario

Subhabrata Bobby Banerjee University of Western Sydney

Elizabeth M. Banister *University of Victoria*

Data D. Barata University of Northern British Columbia

Constance A. Barlow *University of Calgary*

Lee Bartel *University of Toronto*

B. Raewyn Bassett

Dalhousie University, Halifax

Deborah L. Begoray *University of Victoria*

Alan Belk University of Guelph, Ontario

Namita Bhatnagar University of Manitoba

Pam Bishop University of Calgary

Alex Bitektine École des Hautes Études Commerciales, Montréal

Inge Bleijenbergh Radboud University Nijmegen, the Netherlands

David Michael Boje New Mexico State University

Wanda Boyer University of Victoria

Alexander Brem VEND Consulting GmbH, Nürnberg

Lace Marie Brogden

University of Regina, Saskatchewan

Donald Bruce

University of Guelph, Ontario

Boris H. J. M. Brummans Université de Montréal

Janet M. C. Burns

University of New Brunswick

Elizabeth Cairns

University of Prince Edward Island

Shelagh Campbell

Saint Mary's University, Halifax

Adrian Carr

University of Western Sydney

Julián Castro-Rea

University of Alberta

Brian Caterino

Independent Scholar

Didier Chabaud

École de Management Normandie, University of Cergy Pontoise

Dongshin Chang

University of Guelph, Ontario

Colin Chasteauneuf

University of Northern British Columbia

Linda Chmiliar

Athabasca University, Alberta

Adele E. Clarke

University of California, San Francisco

Annabel J. Cohen

University of Prince Edward Island

Michael Corbett

Acadia University, Nova Scotia

Joep Cornelissen

Leeds University

Marian Court

Massey University, New Zealand

Cassandra S. Crawford

Northern Illinois University

Susan Crichton

University of Calgary

Hari Das

Saint Mary's University, Halifax

Benet Davetian

University of Prince Edward Island

Annette Davies

University of Cardiff

Ryan J. Davis

University of Maryland

Jane Dawson

St. Francis Xavier University, Nova Scotia

Katerina Deliovsky

Brock University, Ontario

Hülya Demirdirek

University of Victoria

Constance deRoche

Cape Breton University, Nova Scotia

John Estano deRoche

Cape Breton University, Nova Scotia

MariaLaura Di Domenico

Open University

Carla DiGiorgio

University of Prince Edward Island

Hans Doorewaard

Radboud University Nijmegen, the Netherlands

Jan Dul

Rotterdam School of Management

Gabrielle Durepos

St. Francis Xavier Univsersity, Nova Scotia

Kelly Dye

Acadia University, Nova Scotia

Margaret Dykeman

University of New Brunswick

Margaret Edwards

Athabasca University, Alberta

Fred Eidlin

University of Guelph, Ontario

Tony Elger

University of Warwick

Julia Ellis

University of Alberta

Leona M. English

St. Francis Xavier University, Nova Scotia

Päivi Eriksson

University of Kuopio, Finland

Jeanine C. Evers

Universiteit Voor Humanistiek, Utrecht

Loren Falkenberg

University of Calgary

Peer Christian Fiss

University of Southern California

Margaret Fletcher

University of Glasgow

Janice R. Foley

University of Regina, Saskatchewan

William M. Foster

University of Alberta

Martin Fougère

Hanken School of Economics, Finland

Maria José Freitas

Hogeschool Zuyd, the Netherlands

Carol Fulton

University of Regina, Saskatchewan

Liesl L. Gambold

Dalhousie University, Halifax

Robert Gebotys

Wilfrid Laurier University, Ontario

Patricia Genoe McLaren

Saint Mary's University, Halifax

Robert P. Gephart, Jr.

University of Alberta

Olivier Germain

École de Management Normandie

Silvia Gherardi

University of Trento, Italy

J. Tim Goddard

University of Calgary

Steven J. Gold

TUI University

John Goldring

University of Salford, Greater Manchester

Maria Gondo

University of Memphis

Gina Grandy

Mount Allison University, New Brunswick

Arlene Haddon

Saint Mary's University, Halifax

Tony Hak

Rotterdam School of Management

Ralph Hanke

Bowling Green State University

Lorelei Hanson

Athabasca University, Alberta

Henry Harder

University of Northern British Columbia

L. Lynda Harling Stalker

St. Francis Xavier University, Nova Scotia

Elizabeth Harlow

University of Salford, Greater Manchester

Frank Harrison

St. Francis Xavier University, Nova Scotia

John Hassard

University of Manchester

Pia Heilmann

Lappeenranta University of Technology,

Finland

Martin Hewson

University of Regina, Saskatchewan

Ellen Hijmans

Radboud University Nijmegen,

the Netherlands

Sandra P. Hirst

University of Calgary

Angela Hope

Saint Mary's University, San Antonio

Áine M. Humble

Mount Saint Vincent University, Halifax

Margot Hurlbert

University of Regina, Saskatchewan

David Carroll Jacobs

Morgan State University

Milton Iacobs

State University of New York-New Paltz

Roy Stager Jacques

Massey University, New Zealand

JoAnn Jaffe

University of Regina, Saskatchewan

Markku Jahnukainen

University of Alberta

Kam Jugdev

Athabasca University, Alberta

Helena Kadlec

University of Victoria

Gada Kadoda

Bournemouth University

Frans Kamsteeg

Vrije Universiteit Amsterdam

Mihaela Kelemen

Keele University, Staffordshire

Andrew D. Kitchenham

University of Northern British

Columbia

Michael Kompf

Brock University, Ontario

Hubert Korzilius

Radboud University Nijmegen,

the Netherlands

Donna Kotsopoulos

Wilfrid Laurier University, Ontario

Anne Kovalainen

Turku School of Economics, Finland

Don Kuiken

University of Alberta

Saville Ian Kushner

University of the West of England

Lisa N. LaFramboise

Laurentian University, Ontario

Ann Langley

École des Hautes Études Commerciales,

Montréal

Judith C. Lapadat

University of Northern British Columbia

Cheryl A. Lapp

Labyrinth Consulting

Carole Lynne Le Navenec

University of Calgary

Jason S. LeCoure

Saint Mary's University, San Antonio

Lianne Lefsrud

University of Alberta

Jacqueline P. Leighton *University of Alberta*

Piia Lepistö-Johansson Lappeenranta University of Technology, Finland

Hugo Letiche Universiteit Voor Humanistiek, Utrecht

Pascal Lièvre Université d'Auvergne

Warren Linds Concordia University, Montréal

Sally Lindsay University of Salford, University of Toronto

Stephen Andrew Linstead *University of York*

Feng Liu University of British Columbia

Karen Locke College of William and Mary

Peter John Loewen Université de Montréal

David A. Lynes St. Francis Xavier University, Nova Scotia

K. Doreen MacAulay
Saint Mary's University, Halifax

Janet Mackenzie University of New Brunswick

Gregory Rodney Mackinnon Acadia University, Nova Scotia

Colleen MacQuarrie University of Prince Edward Island

Amal Madibbo *University of Calgary*

Helen Mahoney *University of Calgary*

Sally Maitlis University of British Columbia

Garance Maréchal *University of Liverpool*

E. Anne Marshall *University of Victoria*

Verna L. McDonald University of Northern British Columbia

Michelle K. McGinn Brock University, Ontario

John McMurtry University of Guelph, Ontario

Lars Meier Technical University of Darmstadt

Sherri Melrose Athabasca University, Alberta

Sam Migliore Kwantlen Polytechnic University, British Columbia

Albert J. Mills
Saint Mary's University, Halifax

Jean Helms Mills Saint Mary's University, Halifax

Dolana Mogadime Brock University, Ontario

Andrew Molloy
Cape Breton University, Nova Scotia

Fiona Moore Royal Holloway University of London

Ricardo Morais Catholic University of Portugal

Jean-Luc Moriceau
GET/INT-Management, Universiteit Voor
Humanistiek, Utrecht

Anna-Maria Murtola Åbo Akademi, Finland

Philippe Naccache

Grenoble École de Management

Marc Nesca

Athabasca University, Alberta

Laura E. Nimmon

University of British Columbia

Kathleen Nolan

University of Regina, Saskatchewan

Hiroko Noro

University of Victoria

Mark Nuttall

University of Alberta

David O'Donnell

Intellectual Capital Research Institute

of Ireland

Margaret Olson

St. Francis Xavier University, Nova Scotia

Nilgun Onder

University of Regina, Saskatchewan

Hezekiah Uba Orji

University of Phoenix

Sarah M. G. Otner

London School of Economics

Eriikka Paavilainen

Turku School of Economics, Finland

Amy Pablo

University of Calgary

Michael P. Pagano

Fairfield University

Pekka Pälli

Helsinki School of Economics

Andie Diane Palmer

University of Alberta

Donna Boone Parsons

Saint Mary's University, Halifax

T. Paslawski

University of Alberta

Barbara L. Paterson

University of New Brunswick

Juana Patlan-Perez

Independent Scholar

Bernadette M. Pauly

University of Victoria

George Pavlich

University of Alberta

Beth Perry

Athabasca University, Alberta

Vincent Peters

Kwalitan Advies

Nelson Phillips

University of London

Rebecca Piekkari

Helsinki School of Economics

Emmanuella Plakoyiannaki

Aristotle University of Thessaloniki

Marilyn Porter

Memorial University of Newfoundland

Seppo Poutanen

University of Turku, Finland

Ajnesh Prasad

York University

Jason Matthew Cameron Price

University of Victoria

Vincenza Priola

Aston University, Birmingham

Rhonda Pyper

University of Ottawa

Helen Raptis

University of Victoria

Patricia Rasmussen Athabasca University, Alberta

Emmanuel Raufflet École des Hautes Études Commerciales, Montréal

Rosemary C. Reilly Concordia University, Montréal

Geraldine Rix Université Blaise Pascal, Auvergne

Brian A. Roberts Memorial University of Newfoundland

Jason C. Robinson *University of Guelph*, *Ontario*

GraceAnn Rosile
New Mexico State University

Gretchen B. Rossman
University of Massachusetts-Amherst

Adam Rostis
Saint Mary's University, Halifax

Isabelle Royer *Université de Lille*

Peregrine Schwartz-Shea *University of Utah*

Marie-Claire Shanahan *University of Alberta*

Basu Sharma University of New Brunswick

Sandra Singer *University of Guelph*, Ontario

Bonnie Slade York University

Murray E. G. Smith Brock University, Ontario

Jorge Sousa University of Alberta Henderikus J. Stam *University of Calgary*

Lavinia Stan Concordia University, Montréal

Susanne Starke *University of Bamberg, Germany*

Robert A. Stebbins *University of Calgary*

Christoph K. Streb *University of Groningen, the Netherlands*

Chris Street University of Manitoba

Stefan Strohschneider University of Jena

Roy Suddaby University of Alberta

Deirdre Tedmanson University of South Australia

Eli Teram Wilfrid Laurier University, Ontario

Amy Thurlow Mount Saint Vincent University, Halifax

Janne Tienari Helsinki School of Economics

Vianne Timmons University of Regina, Saskatchewan

Ruthanne Tobin *University of Victoria*

Cagri Topal University of Alberta

Margaret E. Toye Wilfrid Laurier University, Ontario

Eero Vaara Swedish School of Economics and Business Administration AnneLoes van Staa

Rotterdam University, Erasmus University

James Vardaman

University of Memphis

Zsuzsanna Vincze

Turku School of Economics, Finland

Peggy Wallace

Trent University, Ontario

Neil Michael Walsh

University of Otago, New Zealand

Kerry Ward

University of Nebraska-Omaha

Terrance G. Weatherbee

Acadia University, Nova Scotia

David Weitzner

York University

Catherine Welch

University of Sydney

Harry Wels

Vrije Universiteit Amsterdam

Fred Wester

Radboud University Nijmegen,

the Netherlands

David Wicks

Saint Mary's University, Halifax

Elden Wiebe

The King's University College

Jo-Anne H. Willment

University of Calgary

Jaana Woiceshyn

University of Calgary

Julie Wolfram Cox

Deakin University, Australia

Honggen Xiao

Hong Kong Polytechnic

University

Dvora Yanow

Vrije Universiteit Amsterdam

Sierk Ybema

Vrije Universiteit Amsterdam

Robert K. Yin

COSMOS Corporation

Larry D. Yore

University of Victoria

Anthony R. Yue

Saint Mary's University, Halifax

Introduction

Case study methodology has a relatively long history within the sciences, social sciences, and humanities. In sociology, for example, there is evidence that the case study approach was being "pioneered" at the University of Chicago by 1920, as sociologists attempted to illuminate the social instance (e.g., the immigrant experience in the United States) through detailing the particular (e.g., the study of selected Polish immigrants) (see Chicago School entry).

Much of this early case study research was incorporated in qualitative research strategies, but the tradition also developed as part of quantitative and mixed methods research strategies. This was true of medical research, for instance, where the case study approach dates back to the early 1930s and was initially viewed as useful for assisting researchers in making valid inferences from events outside the lab in ways yet consistent with the rigorous methodology of laboratory science (see Case Study Research in Medicine entry).

Over time the case study approach garnered interest across various disciplines as researchers sought to illuminate phenomena through detailed study of their occurrence in a particular context. Today case study research can be found across various sciences (see Decision Making Under Uncertainty), the humanities (ANTi-History), and the social sciences (Case Study Research in Political Science), embracing qualitative (Autoethnography) and quantitative (Before-and-After Case Study Design) research strategies, positivist (Causal Case Study: Explanatory Theories) and postpositivist approaches (Actor-Network Theory), and the practice-oriented fields such as education, management, public administration, and the human services (see, respectively, Case Study Research in Education, Case Study Research in Business and Management, Case Study Research in Public Policy, and Case Study With the Elderly).

Despite this long history and widespread use, case study research has received perhaps the least attention among the various research strategies in the literature on research strategies. In the social sciences, for example, only a few texts deal directly with case study as a central subject, and no encyclopedic reference provides a thorough overview of design and methods in case study research as guidance for students, researchers, and professionals trying to incorporate case studies into a rigorous research project or program. This encyclopedia is intended to be that authoritative resource by combining entries from across the social sciences and humanities, and encouraging work from across the methodological traditions to include feminist, poststructuralist, critical, postcolonial, interpretive, postmodernist, historical materialist, racio-ethnic, as well as positivist entries.

The development of the Encyclopedia of Case Study Research was exciting and challenging. It provided an opportunity to expose a large number of researchers to the value of case study research, but it also offered the challenge of making it interesting and understandable to as wide an audience of researchers as possible. Our challenge has been to make case study relevant to researchers at various stages of their careers—from student to seasoned academic; across philosophic divides—from positivism to postpositivism; across disciplines as diverse as music and anthropology; across the international divide; and from qualitative to quantitative researchers, as well as those interested in mixed methods. In the process, we also hoped that the encyclopedia would appeal to the end users of research. Thus, we drew on a vast number of contacts and networks to encourage contributions from case study scholars from various disciplines and philosophical orientations across the globe. We were aided in our endeavors by an international editorial board consisting of many of the leading researchers in the field. Our hope is that we have succeeded in our overall aim of providing an accessible but far-reaching encyclopedia that will become not only a valuable resource but will encourage new and renewed interest in case study research as well.

The Encyclopedia of Case Study Research (two volumes, approximately 1,100 printed pages) provides a comprehensive compendium covering the important methodological issues encountered in doing case study research, and exploring both their strengths and weaknesses from different paradigmatic approaches. The focus is on the distinctive characteristics of case study strategies and their place within and alongside other research strategies. From beginning to end, this work covers the spectrum, addressing such overarching themes and general topic areas as:

- The scientific method
- Comparing the case study with other research methodologies
- The role of theory in case study research
- Types of case studies (e.g., explanatory, exploratory, descriptive)
- Case studies within various disciplinary contexts (psychology, business, etc.)
- Designing case study research
- Principles of data collection with case study designs
- Conducting case studies
- Analyzing case study evidence
- Composing case study reports
- Evaluating the quality of case study research design and findings
- Using case studies as one part of a multimethod research program

In the spirit of different research traditions, we have avoided standardization of certain terms and concepts, which in some cases are capitalized and in others not; and in some places are italicized for emphasis and in others not.

Defining Case Study Research

Defining case study research is both easy and problematic. It is problematic because the very essence of our approach of bringing together case study researchers from across the paradigmatic divides and across various disciplines means that any definition needs to be all encompassing. As you will find throughout the encyclopedia, definitions of case study vary across disciplines, especially according to the underlying philosophies (or paradigms) involved. On the other hand, there are common threads across all the entries that allowed us to make decisions about what was and was not an applicable entry on case study research. Thus, in the process of developing an all-inclusive work we constructed a particular view of what it is that constitutes case study.

Simply put, case study is a research strategy whose characteristics include

- a focus on the interrelationships that constitute the context of a specific entity (such as an organization, event, phenomenon, or person),
- analysis of the relationship between the contextual factors and the entity being studied, and
- the explicit purpose of using those insights (of the interactions between contextual relationships and the entity in question) to generate theory and/or contribute to extant theory.

Here we propose four noteworthy points concerning our description of the case study: First, and foremost, our definition, like all definitions, serves to limit the object of inquiry but hopefully in a way that is not too restrictive. Second, as such, our definition should be taken as a heuristic, or sensemaking device, for guiding, rather than dictating, your understanding of case study research. Nonetheless, in keeping with the philosophy of our approach, our definition—like all definitions should be viewed as a social construction for making sense of the common threads across contributions. Our definition is not meant to be definitive nor authoritative to the exclusion of other equally valid definitions. Third, we have chosen to call case study a research strategy rather than a method or methodology. Method implies a research tool, such as surveys, interviews, or observations, and case study cannot be reduced to a single method. Methodology can refer to the use of a particular method or methods and the theoretical framework that informs its use. To take the example of interviewing: Some researchers may use interviews as a method for finding out what people actually think about something, while poststructuralist researchers may use interviews to assess how powerful ideas in practice (e.g., employment equity, privatization, fitness) influence the way people think and treat something as knowledge. Case study can involve any combination of methodologies and methods and so is perhaps better described as a strategy to capture the decision making that goes into developing a particular case study. Fourth, we have linked our definition to the focus, form of analysis, and explicit purpose of the research strategy. In other words, a case consists of a focus on the link between a specific entity and its supposed contextual interrelationships, and on what the link can tell us about either the uniqueness of the case or its generalizability to comparable relationships.

How to Use the Encyclopedia of Case Study Research

The encyclopedia consists of 357 entries arranged in alphabetical order over two volumes. Each entry provides the reader with an overview of a specific topic or issue in case study research. In each entry, readers will first find a definition of the headword followed by a conceptual overview and discussion of key issues pertaining to that headword. Since we were particularly concerned with the doing of case study research, readers will typically find an application of the headword, either in terms of a direct description of "how to" or in the form of a description of an example of a case study that embodies the headword. The identification of a specific case study where the headword is applied is especially useful, since it grounds the headword in an actual case study and provides readers with a concrete example, which they can later consult as an additional reference material. Each entry concludes with a critical summary that reflectively raises additional issues of which practitioners of case study research should be aware. Finally, further insight into the headword is then provided

through a list of cross-references to other relevant headwords in the encyclopedia and a list of references for further in-depth investigation.

The encyclopedia contains an entry titled Case Study as a Methodological Approach. Unlike other entries, which deal with specific aspects of case study research, this entry provides an overview of case study research. It does, however, share with all other entries an underlying philosophy that informs its approach and should be read in that vein.

An additional feature of the encyclopedia readers will find helpful is the Reader's Guide, located in the front matter of each volume. The Reader's Guide organizes all entries under nine thematic topics for easy reference. For example, readers may wish to turn first to an overview of case study research within their discipline. The Reader's Guide lists each discipline addressed under the heading of Academic Disciplines. Other categories include Theoretical Traditions, Methodological Approaches, Types of Case Study Research, Case Study Research Design, Data Collection, Data Analysis, Theory Development and Contributions From Case Study Research, and Conceptual Issues. Each entry in the encyclopedia will be listed under at least one of these broad thematic headings.

At the end of the encyclopedia (in Volume 2) we have included a section called "The Fun and Value of Case Study Research." Here we asked contributors to share their sense of the enjoyment as well as the value of case study research. The result is a selected group of five researchers who share their views of how case study research can be as meaningful and as much fun as it is rigorous and methodical. Our aim here is to provide a different way of "getting inside" the case study researcher's viewpoint. Linked to these contributions is a section called "Favorite Cases" where contributors share their opinions on the case studies that have influenced their own work and thinking. Here you will find an array of views and further information on the types of case studies that influence case study researchers. Our aim is to provide a different way of exposing readers to the importance of case study research and a guide to further reading.

Finally, we provide a list of case studies selected by many of the contributors and editors of the encyclopedia. This allows readers to follow up on selected themes, to explore the work of contributors, and to gain a sense of the depth of expertise involved in the two-volume work, and provides another resource for further reading.

Acknowledgments

An encyclopedia encompassing such breadth and depth—breadth of disciplines, philosophical paradigms, and geographic situatedness of case studies, and depth of experience, knowledge, and insight into case study research—could not have been produced without the gracious and careful efforts of practitioners of case study research worldwide. We as an editorial team have been humbled by their commitment to the case study strategy, by their insight into doing case study research, and by their commitment to the people and issues that formed the focus of their own respective case studies. To all who contributed to the encyclopedia, we are especially grateful.

We are also particularly thankful for the outstanding (and this word is understated) contribution of our managing editor, Marion Weatherbee. Marion has brought exceptional organizational

skills to this endeavor, freeing and focusing us as editors to do the work of editing.

We have also been blessed to work with a superb team at SAGE. James Brace-Thompson, who first proposed the encyclopedia to us, has been a constant source of support, encouragement, enthusiasm, and energy. Carole Maurer, our developmental editor, has worked closely with us to gauge our progress, helping us to find ways to continue to move forward in a timely fashion and assisting us with myriad questions and issues over the course of developing the encyclopedia. Our expressed thanks do not adequately convey our depth of appreciation for you. Finally, Laura Notton and Leticia Gutierrez have provided invaluable support through the Sage Reference Tracking System, which has made a logistical monster into a benign house cat.

In conclusion, we are grateful for our readers, both novice and seasoned researchers, who wish to learn about or further develop their abilities in case study research. It is because of you that this has been a labor of love.

Albert J. Mills, Gabrielle Durepos, and Elden Wiebe



ABDUCTION

Abduction is the process of forming a possible explanation involving an imaginative effort to understand on the part of beings acting and learning in a world. It is a practical reasoning mode whose purpose is to invent and propose ideas and explanations that account for surprises and unmet expectations. Within the context of scientific endeavors, abduction is the basis for the inventive construction of new ideas, explanatory propositions, and theoretical elements. Its importance lies in highlighting the discovery dimension of research, especially the central role played by puzzles, hunches, speculation, imagination, guesswork, and the like, in the process of developing theoretical insights. This entry provides an overview of the process and its application.

Conceptual Overview and Discussion

In the late 1800s the founder of pragmatism and polymath, Charles Sanders Peirce, distinguished abduction as a third form of inference necessary for a more complete understanding of the processes of intelligent inquiry. Deduction, as the form of necessary reasoning from which we derive specific observations from generalizations, has dominated Western scientific thinking for over 2,000 years. Not quite as long lived, induction, as the form of probabilistic reasoning from which we derive generalizations from specific observations, has been a feature of modern science for some 700 years.

About a century ago, Peirce suggested that there is a broad class of reasoning that is neither deductive nor inductive but involves inferences from effects to causes. He pointed out that both deduction and induction are closed with reference to the concepts in play. Another form of reasoning was needed to generate new concepts; he came to call this form of reasoning *abduction*. Not to be confused with *inference to the best explanation*, which begins from already established hypotheses, abduction is the mode of inference aimed at developing new ideas. Its basic formula is

The surprising fact, C is observed:
But if A were true, C would be a matter of course,
Hence, there is reason to suspect that A is true

As the presented formula for abduction indicates, it is an inherently transactional process and the element of surprise plays a critical role in stimulating it. The surprise may be relatively active, as when one makes an effort to anticipate a particular result that does not occur, or it may be passive, as when a situation presses itself on one's consciousness. When expectations fall short in some way, abduction is triggered. A central tenet of Peirce's epistemology is that all thinking behaviors, from perception to logical and mathematical reasoning, are mediated by signs. Consequently an observation's status as "fact" or as "surprising," and as the impetus to abduction, is never given purely; it is always mediated by modes of perception, by background perspectives and theories. Its surprising character exists only with respect to certain expectations held under certain circumstances. Surprise signals a need and an opportunity to invent a new way of understanding.

Stimulated by surprise, abduction is involved when scientists struggle for new kinds of intelligible patterns in observations—that is, when they strive to generate a possible "A." The struggle may involve many possible imaginative elements, including hunches, guesses, conjectures, associations, metaphors, speculations, propositions, models, and so on. Furthermore, abduction need not occur in the context of existing language because the formation of new explanations often goes hand in hand with the development of new or newly combined theoretical terms such as "quark," "AIDS," and "garbage can model of decision making." As a form of reasoning, it is suppositional, suggesting only what "may be." However, abduction's value and weakness are two sides of the same coin. It is weak in the sense that the "might be's" entertained are highly permissive; yet that very permissiveness is the source of inventiveness. What at first blush may seem irrelevant, just a loose notion or even nonsensical, may be the beginning of novel ways of understanding.

For some time, the notions of abduction and discovery were controversial issues in the philosophy of science following the claim that the invention of new ideas, concepts, or theories are chance occurrences and, therefore, inappropriate to epistemological considerations. Karl Popper, for example, was one of the most outspoken critics of the idea of a reasoning process for creating novel possibilities. Increasingly, however, philosophers of science and researchers recognize that emphasis has been placed on validation, and they are now to a greater extent attending to discovery processes as part of the work of doing science.

Application

Abduction is not a new approach to analysis and interpretation. Ironically, the process of abduction has likely been a critical part of most interesting theorizing from case research. Perhaps due to the long-standing bias against discovery within the philosophy of science, or due to the apparent inconsistency between the received view of scientific method

and the character of the abductive process, or because case researchers have traditionally subsumed abductive work under the category of induction, it has remained hidden. Accounts of the theorizing process in methodology texts and also in the methods sections of published journal articles generally present theorizing as a validation exercise in which conjectural and imaginative processes play no role.

Clarifying abduction has several implications for how we think about theorizing. First, it calls attention to the imaginative dimension of theorizing, in legitimizing the role played by permissive exploration grounded in the particulars of detailed observations to the development of theoretical insights. It underscores that hunches, guesses, speculations, and loose notions are all essential elements in the theorizing process, and it attests to the value of being deliberately expansive and playful in thinking with observations.

Second, from the perspective of abduction, observations or data are a resource for possible puzzles and speculation. Detailed observations generated through the research process are treated as potential indicators of some processes, structures, or characterizations. Third, it highlights the importance of all departures from expectation to generating insights, for example, surprises, puzzles, and glitches. Indeed, it suggests that researchers should actively court situations that somehow do not square with their expectations and preconceived notions because, in Howard Becker's terms, not knowing what one has a case of is highly productive for one's research efforts. Fourth, clarifying abduction highlights that the lived experience of theorizing is messy, half-blind, wasteful, difficult to articulate, and lengthy. Observations are made, hunches occur, ideas are developed and are tried out in relation to existing or new observations, they are modified or set aside, new ideas are developed, and so on. If abduction is permissive, then false conjectures and blind alleys are necessarily part of the process. Abduction is fallible.

Finally, as a permissive and fallible process, abduction must occur in recursive interplay with deduction and induction in order to arrive at plausible theoretical insights. Ideas have to be articulated and worked out in relation to one's generated data and what one already knows.

Critical Summary

Deduction and induction provide an inadequate conceptual vocabulary to account for the process through which new theoretical insights are generated. Specifically, the concept of abduction is needed to highlight the everyday imaginative work central to interesting theorizing.

Karen Locke

See also Deductive-Nomological Model of Explanation; Inductivism; Knowledge Production; Metaphor; Reflexivity; Scientific Method

Further Readings

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ACTION-BASED DATA COLLECTION

Action-based data focus on what research participants do in their day-to-day activities. Who does what, when, where, and how captures the essence of this focus. Questions of why may also be addressed. Any form of data may be collected, including interviews, observations, and documents

that show evidence of action that occurs in the case. The role of the researcher may be anywhere along a continuum from detached observer to participant observer to full participant, with the research taking various forms from ethnographic case study to a case of action research in which, by researching their own practice, researchers are full participants. This entry provides an overview of the process and its application.

Conceptual Overview and Discussion

Action-based data collection takes place in the natural context of the case and is usually a cyclical process occurring over time. Two collection systems are discussed here that work nicely together: James Spradley's descriptive question matrix helps illuminate what to focus on as action-based data; Herbert Altrichter, Peter Posch, and Bridget Somekh give several suggestions for ways to collect these data.

Spradley, along with others, suggests beginning with "grand tour" observations that give the researcher an initial sense of the parameters of the case that can provide pointers for what to focus on in the next cycle. Spradley suggests nine dimensions of any social situation that provide a comprehensive map for action-based data collection:

- 1. Space: the physical place or places
- 2. Actor: the people involved
- 3. Activity: a set of related acts people do
- 4. Object: the physical things that are present
- 5. Act: single actions that people do
- 6. *Event:* a set of related activities that people carry out
- 7. *Time*: the sequencing that takes place over time
- 8. Goal: the things people are trying to accomplish
- 9. *Feeling*: the emotions felt and expressed (p. 78, italics in original)

Spradley uses these dimensions to create a 9×9 Descriptive Question Matrix, which then leads to 81 specific questions, including the following:

Activity × *Activity*: Can you describe in detail all the activities?

Activity × *Goal:* What activities are goal seeking or linked to goals?

 $Act \times Space$: What are all the ways space is organized by acts?

Event × *Time*: How do events fall into time periods?

Time × *Event*: How do events occur over time? Is there any sequencing?

Objects × *Acts*: What are all the ways objects are used in activities?

There are several advantages to using a matrix like this. It helps broaden the researcher's attention to several social dimensions that might be ignored and helps focus attention on specific action-related details. The grand tour can also point the way to areas that may provide more fruitful detail for the case under study. As can be seen from the detail described, carrying out action-based data collection can be time intensive if the researcher hopes to capture the range of actions over time. The time frame may be bounded by the case study focus.

Altrichter, Posch, and Somekh suggest several ways to collect data for action research that work well in any action-based data collection process, pointing out that the research question will determine what may become data. Existing data provide evidence of past events and include such things as documents and physical traces such as wear and tear on furniture and objects, materials available to everyone or only certain people, signage, sales slips, and so on. These data have high credibility because they were created as part of the day-to-day business of case participants rather than only for research purposes. However, it is important to collect only what is relevant to the present research.

Another category of action-based data collection is the systematic observations and documentation of situations. Because situations are dynamic and action filled, it is important for researchers to choose a clear focus before the observation period starts by deciding what they will observe, why they are observing this particular phenomenon, and when and for how long this particular observation will take place. Because actions happen quickly, it is useful to prepare an observation protocol format.

For example, when wanting to observe the hand-raising/discussion pattern in a classroom, making a diagram of the desks, then using symbols

such as F for female and M for male, indicating a backslash (/) on the desk when a comment is made and a question mark (?) when a question is asked, a check mark when a correct answer is given, and an "x" when one is not. This provides a clear, focused, efficient way to collect action-based data. This protocol can be filled in during the observation and then fleshed out more fully after the actual observation with comments on kinds of questions and comments, gender balance, suggestions for further systematic observations, and anything else pertinent to the research.

Protocols can be created for any kind of observation. Using other people as observers can give fresh perspectives. Photographs, videos, and audiotapes also provide ways to collect action-based data, as does observation of trace materials. For example, participants' self-reports of alcohol consumption to the researcher might not match what is found in their garbage or recycle bins. Observing wear on things such as steps and elevator buttons is an unobtrusive way to document indications of human activity. Finally, interviewing participants in the case can help elucidate underlying meanings of the actions as well as provide new data sources to explore.

Application

Altrichter, Posch, and Somekh point out that what is produced or selected is influenced by the researcher's point of view and that data are static because of their material nature (e.g., a photograph), thus removing the dynamic reality of actions and events. They also point out that the data collected are not reality itself, but only traces left behind. Perhaps the most important thing Altrichter, Posch, and Somekh describe is their Ladder of Inference. They describe three steps:

- 1. Relatively unambiguous observational data (e.g., "The teacher said to the pupil, 'John, your work is poor.'")
- 2. Culturally shared meaning (e.g., The teacher criticizes John)
- 3. Meaning of a sentence for a specific listener (e.g., The teacher is not empathizing with John)

Data collection needs to be as close as possible to what is seen and heard with inferences and interpretations left for a later step. Three nonleading action-based questions that can open initial discussion with participants in a case are: What are you doing? Why are you doing that? How is it going? Documents and physical trace evidence can also be used to start initial interviews with participants. Participants can also provide information that could lead researchers to documents and other things of which the researcher may have been unaware. To increase validity, action-based data need to be collected at different times as well as from different participants and perhaps different places, depending on the focus of the case.

Dennis Greenwood and Del Lowenthal differentiate between positivistic and hermeneutic points of view, each of them capable of leading to very different purposes and foci for collecting action-based data. For example, an action research case study takes on a different analytic dimension from an ethnographic case. If the purpose of an ethnographic case study is to understand the phenomenon as it occurs, the purpose of an action research case study is to examine one's own practice in order to improve it.

Critical Summary

Action-based data collection can provide authentic on-the-spot data that are richly descriptive of the case. Action-based data collection can help uncover dynamic complexity and show various nuances of the case that increase understanding of the phenomena. However, researchers need to ensure they have collected enough data over a long enough time period to create a valid and reliable case. Researchers can never collect "all" the data, so they need to be aware of and share the perspectives they were using at the time of data collection. Researchers also need to pay special attention to Altrichter, Posch, and Somekh's Ladder of Inference, being cautious about moving too quickly from description to interpretation.

Margaret Olson

See also Contextualization; Field Notes; Holistic Designs; Naturalistic Context

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ACTIVITY THEORY

Activity theory is a framework for understanding collective processes undertaken in pursuit of some higher goal. It has its roots in the writing of Karl Marx and Lev Vygotsky and was conceived, as activity theory, by Alexei Leont'ev. From this theoretical perspective, the key unit of analysis is the activity, generally a sustained societal activity such as farming, schooling, environmentalism, or banking rather than a short-term event such as a classroom lesson or one-off interaction between people. Activity systems (communities engaged in activities) are understood through attention to their: subject (the individual or group engaged in activity), object (the goal of the activity with its attendant motivations), actions (processes undertaken to reach the objective), and operations (the underlying and often unconscious microprocesses that make up actions).

Conceptual Overview and Discussion

Activity theory has been described as one of the best-kept academic secrets. Despite its origins in the early 20th century, Wolff-Michael Roth, in a search of *Social Sciences Citation Index*, found that the majority of literature published in the Americas and Europe on the concept has been published in the past two decades. Its use has increased dramatically since the early 1990s in many areas of social science, including anthropology, education, psychology, and human–computer interaction.

The concept at the core of activity theory is that the individual-in-context does not merely react to his or her surroundings but has the power to act to change his or her actions and therefore change the community and the surroundings. Conversely, participation in a community is commensurate with change in one's participation and therefore constitutes learning. From this perspective, learning is conceived as mutual change of subject and object through engagement in activity.

Consistent with this core principle, all aspects of an activity system are understood to exist in dialectic—the mutual exchange between theoretically opposite components such as subject and object. Therefore, though we identify constituent parts, none can be understood without attending to the others.

One of the key frameworks for understanding activity requires attention to subject, object, action, and operation. Subject refers to an individual or a group with a defined and shared goal. It is important to clarify that when a group or community is understood as the subject, the goal must be shared and continue to be shared. Individuals are not a community simply by being located together in time or space. Object, taken in the same sense as the noun *objective*, refers to the understanding, held by the subject, of the purpose of the activity. It provides the motivation and direction for the activity. For example, a group of teachers and administrators at a school may be thought to engage in the activity of schooling. The group is the subject and the motivations and goals that they share constitute the object. The object in this activity system may be different from that of another group of teachers also engaged in the activity of schooling because it is defined by the shared objectives of the particular community. On the other hand, one may consider all teachers and administrators in a society as a community (the subject) with a different set of shared objectives (the object) engaged in the activity of schooling. Understanding through activity requires careful definition of these terms and of the activity, subject, and object under consideration.

Once the subject and object are defined, attention can be turned to the *actions*—the processes undertaken by the individuals or community members toward the achievement of the object. They are considered conscious and chosen with the object in mind. For an individual, there are many different actions that may be undertaken to achieve the same object. Similarly, individuals in a community may undertake different actions, depending on their strengths and abilities, in pursuit of the object. Through different actions they each contribute to the achievement of the object.

The final aspect is that of *operations*—the unconscious microscale procedures that make up

conscious actions. These are aspects of carrying out actions that have been practiced and completed so often that they are routinized and not attended to explicitly. For example, the action of letter writing as part of the activity of activism does not require the subject to attend to the microprocesses of how to turn on the computer, how to access word processing software, or how to use the keys to type. These are the operations that constitute the action of letter writing.

It is important to note that aspects of the system can change their meaning. For example, actions can become operations as they are practiced and eventually routinized. Bonnie Nardi proposes the analogy of gear shifting. For those familiar with gear shifting in a car, at first it is a conscious action undertaken to accomplish the object of operating the car, but in time it becomes an unconscious operation conducted to arrive at a destination. Similarly, operations can become actions if they are impeded in some way and the subject must return conscious attention to them. For example, a change from driving a small car to a large commercial vehicle may force the subject to once again attend consciously to the use of the clutch and gear shifting patterns.

In addition, objects can be transformed in the process of an activity as subjects change and learn. For example, teachers working together to address a new student population (as part of the activity of schooling) may begin with particular goals, but as they learn about the students they may extend and shift their focus, thereby changing their object.

None of these relations (between subject, object, actions, and operations) are strictly linear or fixed. They exist in dialectic. They are, however, stable beyond the moment. Changes that occur are not trivial; changes in object can effect fundamental change in the activity. For example, large-scale changes in teachers' objects can fundamentally change the activity of schooling.

To understand these relationships, Yrjö Engeström proposed a model in the form of embedded triangles. The model focuses on the ways in which subject and object are related to each other and the ways in which their relationship is mediated by artifacts (e.g., tools, language, symbols), rules, the community, and the division of labor. This heuristic is an effective way of understanding and analyzing the dialectics that form an

activity system. It also connects modern interpretations of activity systems to the philosophical foundations of activity theory.

The founders of activity theory are generally agreed to be Lev S. Vygotsky, Alexei N. Leont'ev, and Alexander R. Luria, psychologists working in the 1920s and 1930s to understand the connection between individual and surroundings. Vygotsky, in particular, was critical of educational psychologists treating learning processes in the isolation of an individual's brain. For Vygotsky, the unit of analysis was action by a subject in pursuit of an object as mediated by tools and symbols (including language).

Leont'ev, Vygotsky's student, added to this a careful reading of Karl Marx's posthumously published *Theses on Feuerbach*. In it, Marx argued that neither pure materialism nor pure idealism is sufficient to explain change. Materialism cannot attend to human agency, and idealism locates everything in the minds of individuals. The distinction between collective activity and individual action was an important one for Leont'ev. His work addressed the important impact of mediation by people and social relationships, not only by artifacts. Leont'ev made the primary unit of analysis the evolving activity, including an expanded understanding of the mediated relationships between subject and object.

With this connection to Vygotsky, it is important to distinguish between activity theory and other ways of approaching individuals-in-context who have shared history, including situated action and distributed cognition. In arguing for activity theory as an appropriate framework for studying context in the field of human-computer interactions, Nardi focuses on the differences in the unit of analysis for each of these three approaches. In particular, she focuses on the way in which the object is understood. In activity theory, the object is constructed and held by the subject. It is the dialectic relationship between the two that forms the basis of the theory. Distributed cognition takes the system goal to be abstract and not held within the consciousness of the individual. Like activity theory's object, however, the system goal is still considered as the key organizing aspect of the system. Situated action, in contrast, takes goals as retrospective constructions—descriptions of our motives created after the fact. Situated action takes the perspective that activity and its values are co-constructed in the moment—we are thrown into ongoing activities that direct our actions more than we engage in intentionality located actions. Activity theory, on the other hand, ascribes agency to the subjects to construct objects and undertake (socially mediated) actions to achieve them.

Application

In attempting to study or apply activity theory there is often a tension regarding whether it should be approached primarily as an explanatory concept to address why activities are the way they are or as a methodology, a way of approaching the study of activities. It is used in both ways, often by the same authors, and defined in a general sense that allows for both conceptualizations. For example, Roth defines it as a resource for theorizing, a road-map, and a metatheory for understanding complex situations. Engeström's triangle is often used as a heuristic for analysis, to aid in the identification of the components of the activity system.

In all of these approaches, however, it is primarily a case study method that is used to understand subject—object activity relationships. The focus on the individual-in-context means that case studies are one of the most appropriate ways of examining individuals and activity systems.

One common approach is the activity-level case study. For example, in 2002 Kirsten Foot used a single case study of a community (the Network for Ethnological Monitoring and Early Warning, a network of post-Soviet conflict monitors) to explore object construction. She focused on the way the community object was constructed in the discourse of the participants. She highlighted that, contrary to her initial impressions of scattered individual objectives, the network was a functioning activity system organized around a single, though complex, object.

Another approach is that of the individual-level case study. For example, Anna Pauliina Rainio, in her 2008 study of agency in schools, presents the case of Anton, a 7-year-old boy, as he is engaged in joint narrative construction with his class and teacher. She profiles how he tests and expands his classroom agency through his participation and traces his trajectory from resistance to engagement. This case study hits at the heart of activity theory—change in activity through individual participation

and change in the individual though participation in the activity. Anton's trajectory is understood through this lens.

Finally, researchers may also use multiple case studies to explore the ways in which different communities engage in the same activity. In other words, they focus on different activity systems oriented to the same activity. For example, Andreas Lund, in a 2008 study of assessment practices, explores two different communities (student teachers assessing exam papers in an online environment, and secondary school students conducting peer assessments) engaged in the activity of assessment. Because they are different communities they include different subjects, potentially with different objects and both similar and different mediating tools, rules, and community relationships. Lund uses the cases to establish these communities as activity systems and assessment as a mediated collective practice. The communities, despite their differences, are therefore engaged in a common socially mediated activity: assessment.

These are typical of activity theory analyses with general goals of understanding communities as activity systems, exploring the constituents of activity (e.g., subjects, object, actions, operations), and understanding changes at both the subject and the activity level.

Critical Summary

Activity theory is a framework for understanding and analyzing collective goal-oriented processes. It focuses on the mediated relationships between subjects (individuals and communities) and objects within the context of societal activities. Harry Daniels, however, has asserted that for it to reach its potential as a framework, researchers must pay greater attention to further development of the theory, in particular to conceptualizing the ways in which the structural aspects (e.g., rules and symbols) are produced. Others, such as Hamsa Venkat and Jill Adler, criticize it for not having the capacity to attend sufficiently to the experiences of individuals, especially the differences between individuals participating in the same activity. Despite these concerns, it is a strong theoretic framework that attends to mediation not only through language and tools but through rules, social interactions, and relationships. The general unit of analysis, the activity system and its parts existing in dialectic, provides a complex frame for understanding human actions.

Marie-Claire Shanahan

See also Agency; Community of Practice; Complexity; Macrolevel Social Mechanisms; Social-Interaction Theory

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ACTOR-NETWORK THEORY

Originating in studies of science, technology, and society (STS), actor-network theory (ANT)—or the

sociology of translation, according to Michel Callon and Bruno Latour—is an increasingly popular sociological method used within a range of social science fields. ANT gains much of its notoriety through advocating a sociophilosophical approach in which human and material factors are brought together in the same analytical view. In attempting to comprehend complex situations, ANT rejects any sundering of human and nonhuman, social, and technical elements. In a much-cited article, Callon warns, for example, of the dangers of changing register when we move from concerns with the social to those of the technical. The methodological philosophy is that all ingredients of socio-technical analysis be explained by common practices.

Conceptual Overview and Discussion

A key ANT notion is that of the heterogeneous network, John Law has described this as a manner of indicating that entities (e.g., society, organizations, machines) are effects generated in networks of different materials (e.g., humans and nonhumans). Also, Law suggests that while entities in their broadest sense are usually conceived of as having stability and uniqueness, ANT, in contrast, advocates that they are essentially a result achieved when different heterogeneous elements are assembled together. As such, the ANT approach, for Law, suggests that things take form and acquire attributes as a consequence of their relations with others. As ANT regards entities as produced in relations, and applies this ruthlessly to materials, it can be thus understood, according to Law, as a semiotics of materiality.

As for ANT, entities always exist in networks of relations, this approach suggests that it is not possible to conceive of actors as in some way separable from networks, and vice versa. Following Callon, actor-networks oscillate between that of an actor and that of a network as they engage in sociopolitics, enroll heterogeneous actants, and thus continuously transform and redefine their constitution. This is so because the *activity* of actors and networks is interdependent. For example, for Law, all attributes usually ascribed as human (thinking, loving, acting, etc.) are generated in networks comprising materially heterogeneous networks that either pass through or have ramifications beyond the body.

In this way, a central feature of ANT is to explain how ordering effects—such as devices, organizations, agents, and even knowledge—are generated. Its major focus, at least in its original formulation, is to investigate how entities are performed and kept stable. As a consequence, ANT analyzes the strategies through which entities are generated and held together. For Barbara Czarniawska and Tor Hernes, it tries to unravel the forces that keep actors as one, showing in the process how they are networks that need to be reproduced moment by moment.

Motivated by such concerns, for Latour and Law, ANT implies that organizations and their components are effects generated in multiple interactions, rather than existing merely in the order of things. Organization is perceived as continuous and unfinished, precarious, and partial—a permanent process that generates more or less stable effects; a heterogeneous emergent phenomenon; a verb. According to John Law and Bob Cooper, analyzing organization(s) in this form—stressing that the noun organization can exist only as a continuous result of organizing—challenges what mainstream organization studies (OS) approaches usually accept as given or taken for granted. Thus, as suggested by Brian Bloomfield and Theo Vurdubakis, analyzing organizing via ANT is to attempt to address by which means a diffuse and complex system composed of humans and nonhumans becomes networked (for this approach, organizations are outcomes and products of continuing process—relations and practices that are materially complex and whose ordering can be addressed, locally and empirically, only as in-the-making).

To analyze ordering in the making, ANT has deployed concepts such as immutable mobiles and action at a distance. Immutable mobiles have the capacity to fix knowledge and allow it to be disseminated far beyond its point of origin. They represent, for instance, lengthy processes of translating information (e.g., on location in an ocean, a territory's size and shape, virus behavior) into objects that can be carried while retaining shape (e.g., maps, spatial coordinates, sketches, graphics).

By extension, the possibility of acting at a distance implies control at a distance and relies on the alignment of documents, devices, maps, and so forth. In so doing, it relies on establishing a materially heterogeneous network, one that permits

movement and immutability, simultaneously allowing something previously unknown to become acted upon and controlled. Both of these notions—immutable mobiles and acting at a distance—were central to well-known early ANT case studies, such as the history of Portuguese maritime expansion and contemporary scientists at work. These were case studies that subsequently influenced a number of early ANT studies on organization, accounting, and information—studies that suggest issues of organization and control have long been at the heart of ANT.

A further key concept deployed in ANT-inspired analysis is translation, which is for Callon and Latour the work through which actors modify and displace their multiple and contradictory interests. For Callon, translation is the mechanism by which things take form through displacements and transformations; for example, when actors' identities, the possibilities of their interaction, and the limits of their maneuver are negotiated and delimited. Put basically, as suggested by Law, translation processes see entities that are, traditionally, categorically differentiated transformed into ones that are in some ways analytically equivalent, this representing one of the main epistemological tools used to analyze the establishment of actor-networks.

Callon offers a description of this process. For him, translation is composed of four different moments—namely, problematization (or the interdefinition of actors), interessement (or how allies are locked into place), enrollment (or how to define and coordinate roles), and the mobilization of allies (or who speaks in the name of whom? and who represents whom?). Drawing implicitly or explicitly on this way of portraying translation, a number of case studies on organizational issues have been conducted (together with a series of kindred studies on information systems and information technology).

A detailed description of translation in Callon's terms, however, can sound rather prescriptive for a reflexive processual approach such as ANT. More characteristic perhaps is Latour's view that ANT reflects a philosophy that: aims to analyze ordering as complex outcomes of multiple materials, has a strong relational focus that suggests a kind of material semiotics, and declares that a specific ordering process is but one possibility among many. Proposing general rules or aspects of how

translation takes place can be seen as imposing a particular view of how actors get assembled into networks, this being particularly problematic when such a model is replicated incessantly in case studies. Such method therefore seems alien to one of the key ANT mandates: the need to follow actors without imposing preconceived templates or definitions on them. In this context, ANT-inspired analysis has been accused of providing a simplistic view of ordering, one that may influence the potential of this approach being considered critical for management and organization studies.

ANT studies have also been criticized for offering what seems to be a simplistic way of portraying ordering processes. This critique can be clearly linked to translation notions, which appear to provide evidence for a framework that can portray many different cases without any adjustment, that is, in terms that appear to explain almost everything from vaccines to failed aircraft projects. As ANT seems incapable of considering how sociological translations can differ, it thus fails to address any variation among processes of ordering, according to Olga Amsterdamska. Even one of the main proponents of ANT notes that studies based on the translation notion can, on the one hand, fail to address how the links that constitute translation are made, while on the other assume similarity among different links, thus limiting ANT's capacity to grasp complexity. Similarly for Steve Brown, whereas recent sociological uses of translation tend to stem from the work of Michel Serres, under ANT the notion suggests a representational aspect that fails to account for the figural and nondiscursive dimension present in Serres's philosophy.

As scholars adopting an ANT position have drawn heavily on the notion of translation to theorize aspects of organizing, such studies may, therefore, have been underscored by the idea that organizing processes in a variety of empirical settings can be accounted for by simply following Callon's four-moments recipe. As a result, instead of being thoroughly and richly explained, a variety of specific organizing processes are described in a nice and tidy way, thus oversimplifying what needs to be explained. Not surprisingly, some have suggested that ANT has often been used as methodological description—as a way to describe and label different actors in a given context. As a consequence, for them, it is possible to question to

what extent ANT ontology has been understood and taken seriously by scholars in OS. By arguing that actor-networks become irreversible once translation is accomplished, ANT is accused of producing a deterministic approach to networks. Vicky Singleton argues similarly that the relative stability of networks depends not on their coherence, but on their incoherence and ambivalence, issues that have been generally neglected in early ANT accounts. Susan Star and James Griesemer argue, further, that as translation is frequently told from the point of view of one passage point, and this point is usually the manager, the entrepreneur, or the scientist, this model can lead to a managerial bias, which seems to put ANT in opposition to perspectives that are nonmanagerial and nonperformative (as critical management studies (CMS) claims to be).

However, it is not only the translation notion that can lead to simplistic views of ordering. In some ANT case accounts, ordering may appear as a basic matter of having an effective chain that is able to transport immutable mobiles and action at a distance without detailing the difficulties and problems associated with the dynamics of exerting control. Immutable mobiles, once created, seem to remain the same—because centers and peripheries tend to be portrayed as established locations. This again, however, neglects the potential for resistance and change in relations of power and politics.

Another notion that is seen as leading to a simplistic view of accounting for ordering is the network. Although Law and Singleton suggest it was initially successful in challenging Euclidian spatiality as the network notion has been deployed in a very rigid way, others suggest it later failed to account for all work involved in keeping networks in place. Latour, similarly, argues that the network notion has lost its critical meaning of 20 years ago, when, for ANT, networks were meant to refer to a series of transformations, dependent on the connections and actions that flowed from one actor to another. The idea was to stress movement and change, which, in the main, does not appear to have happened.

The implication is that key ANT notions lead to a singular representation of ordering at the same time that complexities and differences are disregarded. As such, it is argued by Andrea Whittle and André Spicer that this is problematic for the development of critical perspectives that seek to explore all the complexities associated with relations that establish order, especially those related to power. As Daniel Neyland highlights, some of the ANT applications have forged the kind of fixed location and known theoretical moves that ANT previously sought to avoid. In effect, not only does ANT proffer several problematic notions, but its applications also tend to be acritical. For Jan Harris, Latour's theory has often been reduced to ready acronyms and has been followed by unproblematic application of terms to a given field of study. Consequently, ANT has been accused of providing an analysis of organization(s) that naturalizes organizations themselves.

This simplistic view of organizing also has consequences in terms of how otherness has been addressed in ANT works. Nick Lee and Steve Brown suggest that ANT became a meta-linguistic formulation into which any sequence of humans and nonhumans could be encoded. As such, it became, for Lee and Brown, a final vocabulary that covered everything and risked producing ahistorical grand narratives and the concomitant right to speak for all. As a totalizing system, ANT leaves no space for otherness or noncategories, according to Steve Hinchliffe. It also fails to account for difference, leading to a problematic view of politics, with clear consequences in terms of whether ANT can provide a critical analysis of management and organizations.

Finally, ANT has been charged with avoiding a political stance altogether. Olga Amsterdamska, for example, suggests that ANT analyzes the strengths of alliances that make networks, but rarely the character of them. This sees ANT concerned with questions of how networks are established in terms of relations, but not with whether these relations are characterized by ethical or unethical means. Donna Haraway argues similarly that as ANT rarely asks for whom the hybrids it analyzes work, it neglects the role played by inequality in the production of sociological accounts. As such, ANT's seemingly balanced and symmetrical sociotechnical explanations tend to overlook, or even avoid, questions of politics. Further, Robert Ausch suggests that ANT fails to address how political categories, such as gender, race, class, and colonialism, are established; that is, categories that are not static and a priori, but

that operate as historical modes of conditions that impact and affect relations. According to Susan Star, even though ANT describes heterogeneous engineering, it fails to acknowledge that heterogeneity tends to be different for those who are privileged and those who are not. She points out that accounts in this tradition have a propensity to ignore the problem of hierarchies of distribution. For Michel Reed, similarly, ANT ignores how opportunities are unequally distributed in society. And Whittle and Spicer argue that ANT tends to assume rather than problematize what motivates action and which purposes it serves; it also appears to reproduce, instead of challenge, the networks it describes. In so doing, ANT has been accused of being politically neutral, with critics suggesting it is not an appropriate approach to develop a critical case analysis of organizations.

Application

An interesting application of ANT has been written by Anamarie Mol. In her book *The Body Multiple*, which draws on field work in a Dutch university hospital, Mol analyzes the day-to-day practices of diagnosis and treatment of atherosclerosis, arguing that within such practices the disease is enacted into existence. It is a well-written application of ANT's latest developments.

Critical Summary

ANT is a sociophilosophical approach in which human and material factors are brought together in the same analytical view. It tries to understand how entities are enacted into being in a multifarious and complex way.

John Hassard and Rafael Alcadipani

See also Agency; Case Study and Theoretical Science; Ethnomethodology; Field Work; Postmodernism; Poststructuralism; Relational Analysis

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AGENCY

Agency is the condition of activity rather than passivity. It refers to the experience of acting, doing things, making things happen, exerting power, being a subject of events, or controlling things. This is one aspect of human experience. The other aspect of human experience is to be acted upon, to be the object of events, to have things happen to oneself or in oneself, to be constrained and controlled: to lack agency. As people are both actors and acted upon, the interplay between agency and context is a central issue in case study research across all the disciplines. This entry provides an overview of the concept and its application.

Conceptual Overview and Discussion

There are three main types of agency: (1) *Individual agency*: The most fundamental form of agency consists of individuals acting, whether at the micro scale (in private or in locales of co-presence) or at the macro scale (in extensive public activities). (2) *Proxy agency*: One agent acting on behalf of

another is known as a proxy. Common examples of proxy agents are employees acting on behalf of employers, managers acting on behalf of the owners of a firm, or officials acting on behalf of a government. A situation in which a principal hires a proxy agent gives rise to what is called the principal-agent problem—a major subject for legal, political, and economic theory. Although nominally acting for the principal, proxy agents can act on their own behalf owing to the divergence of interests and the asymmetry of information between principal and agent. (3) Collective agency: When individuals collaborate they create collective entities; insofar as such entities engage in effectual activity, they become collective agencies. Among the numerous examples of collective agencies are firms, states, classes, and social movements. The looser a collectivity, the harder it is to attribute agency to it: A degree of coherence is needed in order to form intentions, make decisions, and act.

There are three main bases of human agency that is, three key properties of human beings that give rise to agency: (1) Intentionality: Human beings are purposive or intentional. This is one source of their agency. Action comes in two varieties: On the one hand, action can be aimless, accidental, or unconscious; on the other hand, action can be purposive and goal oriented. In the latter, people seek out the good things they want in life. Only the latter sort of action involves agency. Lack of agency or the absence of agency is to be found when a person acts unintentionally. Accidental or unconscious conduct involves things that happen to us, rather than things that are done by us. Yet, intentionality is not sufficient to give rise to agency. Goals are not deeds. (2) Power: Human beings wield resources and capabilities. This is a second source of their agency. Since power is typically distributed in an uneven fashion, it follows that so too is agency. Some have greater agency than others. (3) Rationality: Human beings are rational. They use their intelligence to guide their actions. They calculate how to achieve their ends, and they think about what ends to pursue. This ability to augment action through reasoning accounts in part for the active rather than passive quality of human behavior. To act with effect, it is necessary for agents to reflect upon their circumstances and to monitor the ongoing consequences of their actions. Although not all people at all times have been highly purposive,

powerful, or rational, enough have to impart agency into history and social life.

Early Thinking

Different systems of thought in history have produced varying ideas of the nature and significance agency.

Ancient Greek philosophy developed a distinction between what were later known in Latin as the *vita activa* and the *vita contemplativa*. The former was the active way of life of the citizen with his twin duties of engaging in politics and fighting in war. The latter was the contemplative lifestyle of the philosopher. Each implied a form of agency. But both forms were understood to be socially restricted: Active citizenship was limited to adult male full members of the city; the philosophical life was even more limited to those who constituted the wise. Agency belonged to the few, not the many.

Medieval Christian thought turned away from human agency. Divine agency displaced human agency. The church condemned as heresy the view (known as Pelagianism) that people can achieve salvation through their own agency. Church doctrine insisted that salvation can come only through divine agency, with God's gift of grace. Boethius's Consolation of Philosophy, a book written ca. 524 and widely read for centuries thereafter, argued that all events and decisions are part of God's plan and derive from God's will. Boethius invoked the image of the wheel of fortune to argue that even apparent coincidences, chance, or luck are products of divine agency.

Renaissance humanism reintroduced a sense of human agency. The name *humanism* arose because of a greater emphasis placed on humanity rather than divinity, on human activities, and on practical rather than theological knowledge. Instead of being the subject of God's will, or powerless against the unpredictable forces of fortune, human beings can shape their circumstances and alter events. In short, in the humanist worldview, humans are agents.

Niccolo Machiavelli developed a notable conception of political agency. Wondering whether there was any scope for human agency in politics, Machiavelli argued in Chapter XXV of *The Prince* that fortune controls half the things we do, while we control the other half. Machiavelli goes on to

convey his idea of political agency with two metaphors. First, he compares fortune to a violent river that when in flood nothing can withstand. But even such an irresistible and destructive power can be mitigated by taking precautions such as building embankments. In this metaphor, the scope of agency is owing to the human quality of prudence or the rationality of practical foresight. Second, Machiavelli likens fortune to a woman, alluding to the Roman goddess Fortuna. But even the unpredictable and changeable winds of fortune can be mitigated by those who are adventurous, manly, strong, and audacious. In the first metaphor, the precondition of agency was cautious rational prudence; in the second it is self-confident power. In sum, Machiavelli offers a recognizably modern theory of agency: He estimates its scope (about half of what we do is agency, half is passivity) and he attempts to identify its bases (rationality and power).

Marxist Perspectives

Marxism brought a distinctive theory of agency. Marxist thought was preoccupied not with everyday private agency at the micro scale, nor with the routine agency of politics, business, or war at the macro scale, but with agency as the collective pursuit of a social revolution. Agency in this context means transforming the world. It became known in Marxism as "making history." Conceived in this way, agency is something that requires immense power, vast knowledge, and hugely ambitious goals.

The agents that make history are classes. Marx was hugely impressed with the immense achievements of the bourgeois class. The first part of the Communist Manifesto hails the vast changes wrought by the bourgeoisie. The bourgeoisie was a potent agent, but its achievements were to be as nothing compared to those of the proletariat. That is because the task of the working class was no less than to liberate humanity, and to abolish scarcity, exploitation, inequality, and oppression for good. What makes the working class a suitable agent for such a task? It is not primarily that the workers are exploited, since they are not the first subaltern class in history to be oppressed. It is first and foremost the potential *power* of the proletariat to control production that gives them world-transforming agency. For Marx, power over production is the basis of all power. But this agency also requires intentionality: Marx was confident that the proletariat would come to hold the goal of overthrowing capitalism and building communism. Its further basis was *rationality:* Advancing knowledge, supplied by the science of critical political economy, would reveal the laws of motion of history, the nature of capitalism, and the preconditions of communism.

Even among Marxists, confidence in the power, purpose, and rationality of the working class eventually began to evaporate. A search began among Marxists for some alternative world-transforming agency. Several alternatives arose: (a) The revolutionary party: Leninists developed the idea of the vanguard party: Critics such as Trotsky charged the Leninists with substituting the agency of the party for the agency of the class. (b) The *peasantry*: Maoists hailed the guerrilla army and the peasantry as revolutionary agents. (c) Colonial nations: In the mid-20th century, Third Worldists posited the national liberation movements of the so-called oppressed nations as agents of world revolution. (d) New social movements: By the end of the century, Marxists began to debate whether social movements of the Left, such as the feminist or green movements, had taken over the role of the working class as world-transforming agency. Though each held fleeting attention, and though each was an agency in the limited sense, none proved to be a world-transforming agent. None of these would-be agents turned out in practice to have the world-transforming power or aims that the theory demanded.

Within Marxism there arose a tension between structure and agency. Marx put it that men make history, but not in any way they please. They make history only under circumstances derived from the past. In due course, Marxism developed two strands: a deterministic one that gave priority to structure and a more voluntaristic one that gave primacy to agency. The deterministic or structural strand emphasized the playing out of the inevitable laws of motion of history that would fell capitalism and drive humanity forward.

Likewise, within social theory more broadly there also arose a tension between structure and agency. One strand denied or downplayed agency. The other took agency as its starting point. The former was preoccupied with the problem of how social order arises. The latter concerned itself with how individual actions generate social phenomena.

Application

Some contemporary applications have been highly critical of the notion that human beings are agents. A notable challenge to agency derives from postmodernist thought. Its critical attitude toward agency was partly inherited from French structuralist thought. Following the structuralist theory of language, postmodernism dissolved agency and gave priority to structures of discourse. Language or discourse was seen as an encompassing structure that produced its own speakers and authors. But postmodernist thought went farther than this. It challenged the bases of agency. One basis of agency is intentionality. Against intentionality, postmodernism tended to stress the fragmentation of any stable identity or sense of self that might formulate consistent intentions. Human beings are conceived not as coherent and purposive but as unstable and shifting.

Another basis of agency is power. A major theme of postmodernism was that power is not a resource of agents. Instead, it is a general, if covert, feature of discourse or knowledge that flows throughout society as capillaries flow blood through a body. Michel Foucault wrote of power as if it possesses agency, instead of agents possessing power. Power produces things—indeed it is the active producer of subjects. Agents are products of power. Power causes things to happen. Power acts.

A third basis of agency is rationality: Postmodernism was highly critical of rationality. One line of criticism was that rationality had no secure foundations. Another was that rationality is oppressive, being a constraint on creativity and imagination. Postmodernism mounted a many-pronged attack on the notion of agency.

But other contemporary applications have sought to defend the notion of agency. Social studies influenced by Anthony Giddens's thought stress the centrality of agency. For Giddens, social theory was at an impasse, trapped between the two poles of agency and structure. His theory of structuration aimed to transcend the impasse. Giddens's theory of structure stressed two key points. The first was that structures are not totalities; *structure* is not another word for "society" or "mode of production" or "world system." Instead, structures are specific sets of rules and resources. Societies or world systems consist of many overlapping sets of structures.

The second key point in Giddens's theory of structure was that structures are not just constraining but also enabling. They limit but also assist action. Thus, structure is not the means by which society limits the scope of what individuals can do. It is how multiple sets of rules and resources at times limit and at times aid agency. Giddens's theory of agency held that the main property of agents is power. Agency, in Giddens's view, means power. Intentionality is not a property of agency, he argues, because actions often have unintended consequences. This remains the most controversial part of Giddens's theory.

In theorizing the interplay of structure and agency, Giddens is keen to point out that neither is in principle more important than the other. As for their relationship, Giddens denies that structure and agency are two separate and opposed things; instead, both are aspects of a single process of structuration in which both structures and agents are involved in the ongoing production of further structures and agents.

A key issue in recent applications concerns what sorts of agents are currently influential in the world order. It is sometimes thought that in a context of globalization, states are becoming less important agencies compared to nongovernmental organizations (NGOs). Daniel Drezner has analyzed this issue in a set of case studies of international regulatory regimes governing the Internet, intellectual property, finance, and other domains. He concludes that the great powers (especially the United States and the European Union) remain the key agents in global governance.

Critical Summary

The interplay between agency and circumstance has long been one of the central issues of social science. All of the human sciences have at root a similar subject matter: human agency as it occurs in structured domains and across temporal spans. Hence all case study research has a similar basic logic of situating agents and actions within its structuring contexts. This is likely to remain the case owing to the basic duality of the human condition: Human beings at once make their social contexts and are made by them; we are actors but also acted upon; people are

subjects and objects; in part we possess agency and in part we lack it.

Martin Hewson

See also Author Intentionality; Postmodernism; Poststructuralism; Power; Praxis; Structuration

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ALIENATION

The concept of alienation at work refers to a process and to the negative results that are produced in a worker who performs a routine, repetitive, and mechanized work that is little stimulating, and that presents the worker with limited possibilities of growth and development. An investigation carried out on alienation must acknowledge that it is a concept not easily defined, has similarities to other constructs, and is a complex phenomenon that requires the consideration of different methodological and conceptual aspects.

Conceptual Overview and Discussion

Many have studied the notion of alienation at work. According to Karl Marx, work becomes alienating when a worker is engaged in a series of tasks over which he or she has no control, and the worker is imbedded in a system of domination, constraint, and under the orders and authority of another person. Erik Erikson associated alienation with a lack of identity in the worker as a consequence of the conflicts between the individual and the social structure. Robert Merton refers to the notion of occupational psychosis as a consequence of the hierarchical inflexibility of organizations, producing an incapacity or incompetence in the worker. In the bureaucratic organization of Max Weber, the bureaucracy produces a climate of alienating work in which the worker should comply with the routines, strict obedience to the hierarchy, and compliance with the norm. Frederick Taylor utilized economic incentives to achieve the maximum productivity of work. The consequence of this was a type of work that was repetitive and in which the needs and motivations of the worker were considered irrelevant. This has been considered alienating.

The study of alienation at work has been undertaken more extensively to understand modern and industrialized societies through a focus on the labor, economic, political, religious, and social systems. The different notions of alienation discussed in the literature have focused more prominently on the condition of the laborer.

Studies of alienation at work have been carried out in many organizations, including industries, government, the health sector, and the education sector; in different occupations and professions such as health workers, teachers, employees, and professionals and nonprofessionals such as manual and nonmanual employees; through different perspectives, including sociological, economic, psychological, and in the social sciences. The notion of alienation has been associated with other constructs; for instance, job dissatisfaction, pressure, exploitation, syndrome of burnout, and mechanization. Alienation at work has its origin, chiefly, in the organization and produces direct and negatives effects in the worker.

Based on the social-psychological literature, Melvin Seeman proposes six meanings of the notion of alienation: powerlessness (feeling of impotence and incapacity to influence in the work system), meaninglessness (feeling of absurdity, lack of sense, and absence of meaning), normlessness (feeling of anomie, and absence of norms), cultural

estrangement (rejecting the values shared by the society), self-estrangement (auto-alienation and lack of interest in the work), and social isolation (feeling of isolation). Seeman stresses that some meanings of alienation are not clear (e.g., self-estrangement), and he notes that there are difficulties in clearly defining and assessing such meanings.

Walter R. Heinz identifies weaknesses in the analysis of Melvin Seeman's work and makes suggestions for future investigations of the notion of alienation. These include developing definitions and measurements of subjective dimensions of alienation; the need for case studies or the use of other research methods that will allow for the development of a deeper understanding of the process(es) by which workers experience alienation; addressing the lack of research with a simultaneous analysis of social and work contexts; addressing the lack of conceptual approaches of the dimensions of alienation; and addressing the lack of multidimensional approaches to measure and to analyze alienation. Despite the diverse existing criticisms, the contributions of Seeman have provided the foundation for the construction of multiple scales of measurement as well as the conceptual focus for the study of the alienation.

Application

In this section, two cases are presented in which the authors performed investigation of work alienation using different methodologies. Both cases contribute interesting results and offer two interesting methodological perspectives for the study of the work alienation.

Margaret Vickers and Melissa Parris designed an exploratory and qualitative study using Heideggerian phenomenology to capture the lived experiences of 10 respondents through interviews. The respondents expressed experiencing alienation in different forms. The results of this study indicate that the respondents who were laid off or made redundant had an alienating experience, with feelings of powerlessness, shock, betrayal, humiliation, embarrassment, shame, and social isolation. According to the respondents interviewed, the outcomes of these experiences were trepidation and fear, less enjoyment, less confidence, less competence in their work, erosion of trust in organization and other people, and a negative impact on careers and families.

In another case, Melvin Seeman studied the consequences of alienation in a random sample of male employees in a Swedish community (N = 558). The consequences included in this study were: intergroup hostility, anomie, political withdrawal, status seeking, and powerlessness. In this study, Seeman designed an index of work alienation using interviews with questions to discriminate among several work situations. The index of work alienation included seven items. Seeman also designed measures of outcomes of work alienation: generalized powerlessness, intergroup hostility, political awareness, status-mindedness, normlessness, expert orientation. In the validity processes, the author performed a factor analysis, and each variable was deemed reliable by the author.

In the first case, Vickers and Parris use the phenomenological approach because it is one of many types of qualitative research that explores the lived experiences of individuals. With this approach, the researcher systematically collects and analyzes the narrative experiences of employees. The authors analyzed the experience of work alienation as a consequence of having been laid off or made redundant. This study drew on a small sample size to foster an in-depth understanding of the experiences, feelings, and events lived by the respondents.

In his study, Seeman used a deductive method. He designed the instruments to assess work alienation (index of work alienation) and for other variables (consequences of the alienation at work). Seeman validated and ensured the reliability of the scales utilized. Because of the methodological approach used in this study, it was possible to consider a sample of greater size.

The discussion of these two case studies illustrates the use and availability of different methodological approaches to study alienation at work. The qualitative and quantitative methodologies offer valuable elements for the study of a phenomenon as complex as alienation.

Critical Summary

Alienation is a theme that has been studied since the industrialization of societies. Alienation is a social and labor problem that exists in many countries, which presents an extensive opportunity to carry out research projects. Recently, many researchers have developed scales for the measurement and comprehension of alienation in different types of organizations. In scientific research, the study of alienation represents a great challenge for researchers because of its complexity. This is seen in the various ways that alienation has manifested invarious organizations and industries. Explanations of the concept of alienation require the use of quantitative and qualitative analysis to explain it in holistic and integral form.

Juana Patlan-Perez

See also Case Study Research in Psychology; Critical Theory; Exploratory Case Study; Interviews; Organizational Culture; Qualitative Analysis in Case Study; Quantitative Analysis in Case Study

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ANALYSIS OF VISUAL DATA

Visual data in case study research refers to any image that represents human experience, whether that experience is of the person(s) in the image, the experience of the image maker, or the experience of the viewer of the image. The photograph has been the dominant form of visual data, but other visual genres social scientists are using in case studies include videos, paintings, and collages. Given its predominance, this entry focuses largely on photography as an entry point into using and interpreting visual data.

Conceptual Overview and Discussion

The development of mechanical reproduction of reality through the photograph lent itself to a scientific-realist view of the world, well captured in the expression, "the camera does not lie." The scientific-realist view considered the photo as an exact representation of reality and as evidence rather than as an interpretation. Captions were often added to photos to direct viewers' attention to what was "meant" by the contents of the photo. This view of the photograph, still used in documentary work, is diminishing in scholarly research. Photographers themselves recognized the differences produced through different camera settings as well as through the manipulation of the printing process, which is even more extreme given the current visual technologies available. Captions represent but one way of understanding a photo. Experience in the field highlights the role of theory and of restrictions governing the production of a photo, which ultimately shapes what is represented. The photograph, then, is not simply a "window" on reality, but rather an interpretation, one particular viewpoint among many.

Sources of visual data include archives and the production of images in the research setting itself. Archival images, which were produced for other purposes, can be interrogated as to their intended meaning in their time, how they were made, the content of the image including what is missing, their link to accompanying text as well as other texts, and how audiences over time have interpreted them. Occasionally, it may be possible to interview persons depicted in archival images, essentially creating an opportunity for photo elicitation, described below. Such scrutiny of archival visual data can produce important narratives that are counter to those espoused in the archival record.

Images produced in the research setting can be a powerful method for gaining new understanding since they are particularly suited to "seeing" people and social phenomena in a new light. Deeply held assumptions cause us to see things in a certain way; visual data are able to facilitate seeing differently. Photo elicitation and photo voice are two ways researchers can use photography to overcome their own assumptions in the research setting.

Photo elicitation is a variation of open-ended interviewing where photographs are used to elicit

the cultural insider's understanding of what is in the photo. The researcher, in taking photographs, comes to realize his or her lack of knowledge of what is contained culturally in the photo. Overcoming this requires, first, being self-aware: How am I approaching this situation and why am I photographing this particular content in this particular way? At the same time, it requires being an informed participant observer, where the researcher immerses him- or herself in the cultural world under investigation. Finally, having taken the photo, the photographer must now elicit from the cultural insider an understanding of what is in the photo and what was omitted. Roles are reversed as the researcher becomes the listener/student and the subject becomes the instructor. That which is taken for granted in the subject's world is explicated for the researcher, who often is unaware of what is "in" the photo. In this way, the voices of insiders are heard and the photo becomes an explication of their world rather than the author's limited understanding of that world. The subjectivity of those who inhabit the cultural world under investigation becomes more explicit.

Photo voice is a variation on photo elicitation. Rather than the researcher being the photographer, the cultural insider is given the means of production, thereby amplifying the voice of the insider. The insiders are given the power and the means of telling their story in a manner chosen by them, and the researcher becomes a collaborator in telling their stories. With the use of video technology, photo voice communicates even more. It becomes a way of conveying the felt experience of living in a particular cultural world in a way that goes well beyond what could be expressed through only words and still photographs.

The use of visual data in research is determined by several things. Central considerations include the research question(s) and theory used by the researcher, aptitude with visual methods, ethical considerations, and in archival-based research, the availability of images. Several of these issues are addressed in the discussion below.

Application

Douglas Harper's ethnographic case study of a rural mechanic in *Working Knowledge* is a masterful example of the use of visual data produced in the research setting. Harper focuses on one

individual-Willie, and, in particular, his skill as a mechanic. Harper's study developed out of his personal, theoretical, and methodological interests. He came into contact with Willie, later his friend and key informant, through a mutual interest in Saab automobiles. The nature of the skill Willie displayed as he went about repairing Saabs as well as various other things was theoretically intriguing to Harper, especially as he saw that kind of skill disappearing with the increased rationalization and automation of repair work in Western society. Harper has a strong methodological interest and ability in photography and visual methods. Moreover, Harper has an abiding concern about the disappearing rural world in the face of continued modernization. Thus, photography became integral to the research project.

As he began the research, Harper took photos of Willie's work but quickly realized his photos did not reflect the depth of knowledge and skill evident in Willie's work. Harper took more photos, becoming much more sensitive to Willie's work—the hands, the materials and tools, the fine details, the setting, and the progress of the work. Then Harper interviewed Willie, making the photos the focal point of the discussion. He gathered 30 hours of tape-recorded interview material that he transcribed into some 300 pages of text. Through sensitivity and photo elicitation, Harper achieved an important transition in what his photos communicated.

The use of photography did not end with the photo elicitation. Past practice used photos as dressing to illustrate or supplement text, which was considered the "real" work. However, an ethnographic case study using photos would be impoverished if it did the same. Thus Harper sought to have the text and the photos explain the skills and community around the shop. Working Knowledge displays congruence between text and photo, and a dependence of one on the other to produce a coherent presentation. Displaying a series of photos juxtaposed with the verbatim transcription of Willie and the author talking about the photos provides the interactive element necessary for the photos to do the work of explanation. Readers are invited to participate in the interview and to grow in their understanding of Willie's world from Willie's perspective in Willie's own voice as they listen in on the conversation concerning the cultural meaning depicted in a photo.

It is important to note some ethical issues Harper encountered in utilizing photography. First, cameras are intrusive. To gather the photos necessary for his purposes, Harper needed to be quite aggressive; the detail in his photos bears this out. Photography is much more visible and invasive than standing off to the side taking notes. Permission must be granted, and not taken for granted, as the research progresses. Moreover, some topics may become too intrusive and personal for photography. Harper includes only a few photos of the connection of Willie and his shop to the wider community. The paucity of photos in this aspect of the research may underscore increased sensitivity and reticence in this area. Choices concerning when to use photography are dictated by the appropriateness of the research setting and relational context.

Second, photos are revealing. Anonymity of respondents is at stake. Though Harper uses a pseudonym, Willie's face is recognizable, and since Willie's reputation is critical to his everyday life, to show his face presents a significant risk. Also at stake is the misrepresentation of the photos, especially when removed from their context. Harper's attention to the inclusion of Willie's voice situates the photo and its production in its context, and the reader is moved from a foreign "other context" interpretation of the photos to an understanding from Willie's perspective. In Harper's text the reader is moved from seeing "junk" to seeing value and worth, community, and even beauty.

Several examples of archival visual analysis are also available. In her book, Catherine Kohler Riessman highlights two examples, one of which is the work of Elena Tajima Creef, who interrogates the visual depiction of the internment of Japanese Americans during World War II. Her work clearly shows the interplay of archival photos, texts, government documents, drawings, and the iterative nature of analysis—moving back and forth between photos and other data. Interestingly, Creef also draws on a corpus of photos from three different photographers who produced a record of Japanese internment from three different perspectives and agendas. Evident in Creef's analysis is the care taken to understand the photographers' "theory" in creating their photos, as well as the importance of attending to the contexts in which the photos were produced.

Critical Summary

Visual data are increasingly being employed in case studies as the products of photography, especially, but also other visual genres, are conceptualized in ways that challenge the realism of traditional documentaries. Photo elicitation undermines the authority of the "expert" researcher in favor of the cultural insider. Photo voice undermines the power relations implicit in production of photos seen, for example, in the colonial era. The power of image-making is now given to the subjects of the research, who typically have not had the power or voice to represent themselves. The critical scrutiny of archival visual data challenges "official" stories, thereby surfacing counter-narratives. Overall, the postmodern turn in the social sciences has brought new life and vigor to the use of visual data, creating richer analysis and deeper insight as we begin to see in new ways.

Elden Wiebe

See also Archival Records as Evidence; Narrative Analysis; Participant Observation; Postmodernism; Researcher–Participant Relationship; Visual Research Methods

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Analytic Generalization

With both the case study and the laboratory experiment, the objective for generalizing the findings is the same: The findings or results from the single

study are to follow a process of analytic generalization. Analytic generalization may be defined as a two-step process. The first involves a conceptual claim whereby investigators show how their case study findings bear upon a particular theory, theoretical construct, or theoretical (not just actual) sequence of events. The second involves applying the same theory to implicate other, similar situations where analogous events also might occur.

Conceptual Overview and Discussion

All research takes place in the form of single studies. The significance of any given study depends not only on the study's findings but also on the broader implications of the findings—the extent to which the findings can be "generalized" to other studies and other situations. The more that research of any kind is generalizable in this fashion, the more the research may be valued.

Generalizing the results from a single case study poses a unique problem. Case studies are typically about a specific case. Even if a case study is about multiple cases, each case is likely to consist of a specific set of persons or a specific set of events in a specific place and at a specific period of time. Indeed, each case's specificity is likely to make it a unique situation. Given these circumstances, how to generalize a case study's findings to other situations, thereby enhancing the importance of the findings, would at first appear to be problematic. Note, however, that the same challenge pertains to laboratory experiments, not just case studies. How to generalize the results from a single experiment, taking place with a specific group of experimental subjects in a given place and time (and subjected to specific experimental interventions and procedures), also might seem problematic.

Application

Using analytic generalization requires carefully constructed argument. The argument is not likely to achieve the status of a proof in geometry, but the argument must be presented soundly and be resistant to logical challenge. The relevant theory may be no more than a series of hypotheses or even a single hypothesis.

The pertinent argument or theory should be stated at the outset of the case study, not unlike the

posing of propositions or hypotheses at the outset of any research. The argument needs to be cast in relation to existing research literature, not the specific conditions to be found in the case to be studied. In other words, the goal is to pose the propositions and hypotheses at a conceptual level higher than that of the specific case. Typically, this higher level is needed to justify the research importance for studying the chosen case in the first place.

The findings from the case study should then show how the empirical results supported or challenged the theory. If supported, the investigators then need to show how the theoretical advances can pertain (be generalized) to situations other than those examined as part of the single case study.

The procedure does not differ from that used in reporting the findings from single laboratory experiments. However, the procedure does differ strongly from an alternative strategy—statistical generalization—which is not relevant to case studies and should be avoided if possible.

An example of analytic generalization is found in Graham Allison and Philip Zelikow's famous case study of the Cuban missile crisis. The investigators initially posed their case study as one that would investigate how superpowers confront each other. The case itself involved the United States and the former Soviet Union threatening each other over missiles located in Cuba in 1962. After presenting their case study, the authors then claimed that similar lessons could be applied to a wide variety of other international confrontations involving superpowers, including confrontations from other eras and involving superpowers other than the United States and the Soviet Union.

Critical Summary

As part of the case study, the stating and examining of rival hypotheses will greatly strengthen the claimed analytic generalization. Meaningful or plausible rivals to the initial hypotheses should have been identified at the outset of the case study (but also may be encountered during the conduct of the case study). Thorough examination of the rivals entails sincere efforts to collect data, during the case study, *in support of* the rivals. If such data have been stringently sought but do not support the rival, the rival can be rejected. Case study findings that support the main hypotheses while simultaneously

rejecting plausible rivals constitute strong grounds for claiming analytic generalizations.

Beyond making a claim, the generalizability of the findings from a single case study increases immeasurably if similar results have been found with other case studies—whether such studies already existed in the literature or were completed after the first case study. The replication of results across multiple studies, again whether occurring with case studies or with a series of laboratory experiments, is therefore a methodic and desired extension of the process of making analytic generalizations.

Robert K. Yin

See also Case Selection; Case Study and Theoretical Science; Causal Case Study: Explanatory Theories; Contribution, Theoretical; Critical Incident Case Study; Cross-Case Synthesis and Analysis; Extension of Theory; Falsification; Generalizability; Naturalistic Generalization; Theory-Building With Cases; Theory-Testing With Cases

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ANONYMITY AND CONFIDENTIALITY

The concepts of anonymity and confidentiality are closely linked in case study research. Anonymity is the protection of a research participant's or site's identity. Confidentiality is the safeguarding of information obtained in confidence during the course of the research study. It may be oral (i.e., obtained during an interview) or written (i.e., obtained during a review of an individual's or entity's records and other documents).

Conceptual Overview and Discussion

Case study research is often used when a researcher is looking for in-depth, detailed empirical data

about a particular phenomenon. Data may be gathered using a case study to develop a theory, test an existing theory, or obtain a more in-depth understanding of themes emerging from quantitative studies using surveys. Data concerned with matters of public interest may also be gathered. The researcher must take every means possible to protect the identity of the research participants and preserve the confidentiality of information obtained during the study. The confidentiality requirement is no less stringent when the research site operates in the public domain (e.g., a publicly traded corporation) or when information about research participants and sites is available to the public through alternative sources.

The need to maintain the anonymity of the research participants and site and the confidentiality of information can create ethical and methodological challenges for the researcher at various stages of the research process. These challenges are discussed in the following sections.

Ethical Considerations

Individual participants in a research study risk possible loss of anonymity, and this risk increases in studies using qualitative research methods such as interviews and observation. The loss of anonymity can lead to personal embarrassment and a possible loss of self-esteem and employment for the participant. Entities that are used as research sites can also suffer from a loss of anonymity, leading to damage of public reputation or disclosure of trade secrets, for example. In her landmark study *Men and Women of the Corporation*, Rosabeth Moss Kanter identified her research site by a pseudonym—INDSO—in order to protect the identity of the organization and its employees.

Protecting the research participants' identity does not, however, eliminate the need to protect information obtained during the research that may be of a confidential nature. Publication of confidential information can, inadvertently, lead back to the identity of specific individuals. Research participants can overlook or forget that information they are providing to the researcher is not known or generally available outside of the research site. For example, they may discuss information obtained from the entity's intranet site concerning new product development, acquisitions, or investments

that have not yet been made available outside of the entity, or specific personnel matters or individuals. It is the researcher's responsibility to ensure that this type of information is not published even when it might represent a significant component or aspect of the research study. If such information is disclosed, it is the reputation of the researcher and potentially the researcher's institutional affiliation that is damaged.

Privacy and confidentiality form one of the major cornerstones of the ethical research policies concerned with the use of human subjects in research. Research ethics boards (REBs; Canada) and institutional review boards (IRBs; United States) have been established in academic institutions as well as other entities engaged in research of and using humans. Researchers must receive approval from the relevant committee prior to conducting the study.

In their application to their REB or IRB, researchers are required to describe how they will maintain the anonymity of the research participants through the use of pseudonyms and the publication of general rather than specific descriptions of demographics. They must address the physical safeguarding of data, for example, interview tapes and transcripts, restriction of access to the data, and methods of destruction upon completion of the study. Finally, the researcher must indicate whether any of the research data will be disclosed to third parties. All of these procedures are designed to maintain anonymity and confidentiality. In practice, researchers may be required to seek approval from more than one board or committee, particularly if their research involves educational (e.g., elementary and secondary schools) or healthcare institutions (e.g., hospitals) and their constituents. Failure to obtain the necessary approvals can result in the cancellation of the study.

Methodological Challenges

Case studies often focus on how people live their lives and act in particular, situated contexts. The removal of identifying information and suppression of confidential information can lead to the removal of the contextual information that is of the greatest interest and value to the researcher. Thus the researcher is faced with the challenge of presenting significant findings from a study while

maintaining the anonymity of the participants and preserving confidential information. This challenge can be compounded when the case study involves a small number of participants; the phenomenon under investigation is limited to a small community; or a third party is intimately familiar with the researcher's work or the research site (entity and individuals). The generalization or removal of certain identifying characteristics does not always remove the risk of identification nor reduce the risk related to the publication of confidential information. In some situations it may be necessary to omit any reference to the individual or entity.

Clifford Christians notes that despite all efforts on the part of the researcher, the maintenance of watertight confidentiality is almost impossible to attain. Insiders may recognize the pseudonyms and disguised locations. Information perceived as harmless by the researcher may, in reality, be perceived quite differently by the participants. One suggested approach to mitigate this risk of identification is to engage the participants actively in the drafting of the research findings. At the same time, the researcher must balance the need to protect the participants with the need to maintain the integrity and value of the study.

Application

In her study of women managers leaving their work organizations, Judi Marshall conducted indepth interviews with 17 participants. One participant subsequently withdrew during the final phases of the study because of her articulated concern that she could or would be identified. Gloria Miller noted in her study of women working in the Canadian oil patch that it was necessary to remove any identifying characteristics (e.g., position title, description of organization, location of employer, nature of involvement in the oil industry) because the Canadian oil industry was densely interconnected. That is, the industry was a small, geographically concentrated industry where networking was prevalent and individuals moved among the companies. This created a risk that someone familiar with the industry would be able to identify one or more of the participants in the study.

In a study of the careers of women accountants conducted by Peggy Wallace, several participants spoke freely about the challenges encountered

while working in public accounting firms. Their challenges ranged from the time demands and commitments of the profession and public accounting firms to lack of support from identified members of a firm. In one case, a participant provided financial information about a firm in order to illustrate the magnitude of her challenge. While this was exactly the type of information the researcher was looking for, the financial information could not be used as it was not known or made available outside of the partnership. It also proved to be very difficult to mask the identity of the participant without losing the context and value of her particular story. Because of concerns about the possibility of someone identifying this individual, a decision was made to exclude her detailed story from the study.

Critical Summary

The very characteristics that make case study research valuable in terms of providing insights and in-depth information about a particular phenomenon are the same characteristics that create ethical and methodological challenges concerning anonymity and confidentiality. The researcher who uses case studies must always deal with these challenges and balance the value of publishing the research findings against compromising the anonymity of the participants and information provided in confidence. There is no easy or simple way to resolve these challenges. The researcher must address the issues as they arise and take appropriate steps to resolve them to everyone's satisfaction. At the same time, researchers should not avoid case studies due to the existence of these challenges.

Peggy Wallace

See also Anonymizing Data for Secondary Use; Credibility; Ethics; Inductivism; Plausibility; Reliability

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ANONYMIZING DATA FOR SECONDARY USE

Anonymizing data is a process that occurs throughout the data collection and analysis phases of research where identifying information is removed from the data in order to protect the privacy of research participants, the groups and/or communities that are being examined. The process of anonymization helps to prepare the data for secondary use where it is made accessible to other researchers. Secondary use refers to using data to examine a question that was not the purpose of the original data collection.

Overview and Discussion

Data anonymization is an important stage in the research process, especially when preparing the data for secondary use. Anonymizing data may involve several levels and there are many ways it can be achieved.

The first level often involves removing or renaming direct identifiers. For example, anonymizing data involves more than simply removing the names of the participants under examination. It also involves removing or substituting all of the elements (e.g., names, places, and addresses) that might lead to the identification of an individual or group under examination. This can be done by giving all participants or cases a pseudonym or a code number. Some may argue that it is better to use numbers instead of pseudonyms in order to avoid the possibility of switching one person's name with that of another participant within the same case study. Numbers may offer protection against

revealing participants' identity, but they do seem somewhat sterile. In using pseudonyms, it may also be important to give participants names that are appropriate to their generation. A good strategy might be to go to the most popular names from different years to find suitable names. If the researcher feels confident that it is not to the detriment of anonymity, it might be useful to choose a name that starts with the same letter—Jack to Joe for instance. This then might help when analyzing the data and keeping in mind the person rather than just his or her words.

Establishing pseudonyms early in the research process is helpful. Changing the names when first proofreading the transcripts provides space to become familiar with the pseudonym. The point is to keep the data alive and, at the very least, associated with that person but not identifiable. It is also important for the original researchers to keep a cross-referencing system, which is needed to link original names to the data.

The second level involves removing or renaming indirect identifiers. A common technique involves restricting the more extreme or deviant cases, particularly within qualitative data. Another approach is referred to as bracketing, where categories of a certain variable, like age and income, are combined. For example, birth dates should be converted into age categories. Other indirect but specific personal information that could identify participants could be anonymized in the same way. Another strategy is to collapse or to combine variables by creating a summary variable. Within qualitative research, anonymizing is often more difficult because many identifiers will often need to be removed. Depending on how small the case study is, certain places may also need to be renamed in order to protect the anonymity of the community under investigation.

Finally, at the third level, researchers need to decide whether their data are simply too sensitive to be made publicly available. The data may be deemed so identifiable that they cannot be made publicly accessible for secondary analysis.

In all cases it is important for researchers to establish a systematic procedure for replacing, bracketing, or deleting text. It is also a good idea for researchers to keep a list of all of the items that were replaced or removed. Researchers may find it worthwhile to proofread the data to develop a sense

of what needs to be anonymized. All of the researchers involved in the data collection should be involved in the data anonymization process because each has a different idea of what is important to preserve for secondary data use. Researchers should also ensure that a copy of the original data be kept.

Application

When working with sensitive or marginalized groups, ensuring that participants' identities remain hidden might need to take precedence. People can be identified through habits or pastimes and not simply by their names. The ability for others to backtrack and potentially establish the identity of a participant could be through obvious examples, such as highest qualification or a rare incident. Such information, while seemingly innocuous, might be the key to personal identification if the participant is part of a small group or close-knit community. Other group or community members may be aware of the indirect identifiers and be able to make the necessary connections back to the individual. At one level, it may be necessary to make subtle changes in such information or at the extreme remove it all together. For example, in a study exploring health literacy in gay men, three small groups were accessed and participants recruited. A participant within one group was the only person to hold a PhD, whereas others held master's degrees. In this example, it was necessary to change the name, age (making him a year younger but still in his early 40s), and all mentions of degree to "higher degree." This did not substantially alter the context of the data but did set in place safeguards to protect the anonymity of the individual as his identity blended in with the others with a higher degree.

On other occasions, it might be necessary to remove sections of the data where the indirect identifiers cannot be altered in ways that guarantee anonymity. For example, in Paul Bellaby, John Goldring, and Sara MacKian's study of health literacy and the framing of health messages in the gay community, the eating habits of a participant's mother-in-law were so revealing that no amount of anonymization could have concealed the identity to his partner. Of course, revealing the eating habits was not the problem, it was the associated data, which revealed serious health problems. A judgment

needed to be made between the data/analysis and the promises of anonymity. Had the data not been removed, it would have been easy to backtrack and identify the individual. In both instances above, the participants were given a copy of their anonymized transcript along with a list of what had been removed and the rationale for its removal. They were then asked if they felt their anonymity had been protected.

When sampling from small groups or communities, identifying features could be the specific activity from which the group is formed. For example, Bellaby, Goldring, and MacKian recruited participants from a gay rugby club. This is an activity with a highly specific indirect identifying feature. In this instance there are three levels of concealment to consider: the identity of participants from other group members; the identity of the participants from the wider population; and finally, the identity of the group. The group was labeled "athletes," which kept their sporting connection but hid the actual activity. It was then necessary to bracket out the specific activity from the transcripts. The same standard of anonymizing the data was still required so that other group members could not identify each other. In this instance, it was necessary to collapse and combine the narratives of participants so that the analysis of the group was referred to when presenting the subsequent report.

Critical Summary

Anonymizing data for secondary use involves telling the story of what is happening within a case without telling whose story. Important benefits include protecting the identity of the research participants, saving time and money by avoiding the collection of similar primary data, and creating an opportunity to develop a better understanding of a phenomenon that was unpredictable at the time of the original data collection. For example, some of our understanding of the causes of disease can be attributed to secondary data analysis.

Disadvantages of anonymizing case study data include that it may distort the data when contextual factors are removed. It is also often difficult to know how much anonymization is enough. Anonymizing data may make them more difficult to link with other data. Finally, ethical issues also

need to be considered. For example, did participants give informed consent for others to use the data for reasons other than the initial purpose of the data? There are also issues about who has ownership of the data once they are open for other researchers to use.

Sally Lindsay and John Goldring

See also Anonymity and Confidentiality; Case Study Database; Extreme Cases; Reliability; Secondary Data as Primary

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ANTI-HISTORY

ANTi-history is an approach to the study of the past that draws on actor-network theory (ANT), poststructuralism, and the sociology of knowledge. ANTi-history sets out to simultaneously represent and destabilize selected past events with the ultimate aim of pluralizing history.

Conceptual Overview and Discussion

ANTi-history, developed by Gabrielle Durepos and Albert J. Mills, draws on poststructuralism,

the sociology of knowledge, and ANT to make sense of the past. The approach developed out of an interest in how knowledge, particularly historicized knowledge, comes into being and influences human action. The interest in knowledge is rooted in the concerns of the sociology of knowledge to understand the social base or roots of knowledge. The interest in history is rooted in the concerns of Foucauldian poststructuralism to understand the ways in which the present is constructed through reference to past events, that is, that history can be seen as a study of the present rather than of the past. To trace the social bases of present knowledge, Durepos and Mills draw on ANT, which seeks to reassemble the present through tracing the sociopolitics of actors over time by focusing on the way networks of ideas cohere, or are punctuated, in forms of knowledge. Building on Bruno Latour's ANT, Durepos and Mills set out to fuse together insights from the sociology of knowledge, poststructuralism, and ANT to develop a historiography that is capable of dealing with the past as "available" through innumerable traces whose construction lends itself to equally innumerable histories. As such it is a method for simultaneously assembling and destabilizing histories. In other words, it is an approach that encourages the development (or reassembling) of historical analyses, not simply to represent the past but also to reveal alternative readings (or histories) that surface that which is marginalized, hidden, suppressed. In the process, histories are revealed as useful guides to human action at the same time that they are destabilized by an understanding that they are reassembled for current action rather than grounded in fact. Hence the term ANTi-history, which draws on the signifier of ANT to signal a link with actor-network theory and that suggests the tension between the simultaneous construction and destabilization of history projects.

Application

Above all else, ANTi-history is a liberationist project aimed at revealing the social bases of knowledge, particularly knowledge that has the added significance of being punctuated as history. In this way, people can become aware of the sociopolitical role of history and its significance in the creation

and privileging of identities. To that end, an ANTihistory approach involves a number of processes that include critique of existing histories as partial and, in the words of Hayden White, invented rather than found, and in the reassembling of alternative histories that simultaneously bring to the fore previously marginalized voices and destabilize existing history as one of various alternative readings. The approach thus is far reaching and requires considerable time, commitment, and access to relevant actors and materials.

An example of ANTi-history can be seen in the recent work of Durepos and her colleagues on the study of Pan American Airways (PAA). This airline was in operation from 1927 until its collapse in 1991. In its day, it had a powerful influence on the culture as well as the economy of the United States. Much of this had to do with the sociopolitical role of the airline over time but was also helped in later years by a series of histories of the airline that kept, or perhaps revived, its influence in popular culture. Examination of the various histories presents a fairly coherent story in terms of the main characters and events involved. The main difference between the histories centers on the attention given to some events over others and the time in which they were written. The earliest history of PAA, for example, was published during World War II and focused more on the heroic contribution of the airline to the war effort. Later histories give more time and attention to different decades and events beyond the war years.

Reading the various histories from an ANTihistory perspective requires detailed notation of highlighted characters and events (using a form of content analysis); analysis of the organizational discourses that appear to be embedded in the materials discussed (using critical discourse analysis); analysis of the relationship between each text's author(s), the context in which they are writing, and the intended audience (using critical hermeneutics); and an interrogation of the various texts to see who and what is privileged and who and what is marginalized, hidden, not discussed. In this particular case, PAA histories privilege men over women, whites over people of color, U.S. citizens over people of other nationalities; some form of benevolent U.S. imperialism over other forms of imperialism; technology over tradition; entrepreneurship over bureaucracy; and private ownership over public ownership. In the process, women and people of color are marginalized and barely make their way into the story. The peoples of Latin and South America are marginalized in some cases (e.g., as plot devices to reveal the skills and intelligence of PAA's managers), hidden in most cases (e.g., with the story focusing on PAA's ability to expand its airline through acquisitions and deals), or demonized (e.g., as in stories that range from attempts to obstruct PAA's expansion in South America to threats to U.S. interests in the Panama Canal).

In the development of a case study of a particular person, organization, or event, written histories are but one important source of material in the pursuit of an ANTi-history. Access to the selected person or members and former members of an organization are also important as is access to archival materials. In the case of PAA, entry to the organization was impossible as the company closed in 1991. This made access to former employees very difficult if not impossible. However, there does exist an extensive archive of over 1,500 boxes, housed at the Otto Richer Library of the University of Miami. The latter allowed Durepos and her colleagues to examine numerous historical "traces" to scrutinize not the extent to which existing histories of PAA were based on selected readings of materials (that is taken as a given), but the sociopolitical processes that shaped those readings.

A number of findings have been developed from the emergent ANTi-history of PAA and have been written about elsewhere. They include the development of a prominent story of myth-like proportions that positioned PAA and its leaders as heroic in the World War II struggle against the Nazis. It is a story that constructs the Colombian state as Nazi collaborators, or at best opportunists, in what is characterized as a German threat to U.S. interests, specifically the Panama Canal. Through a detailed sifting of the PAA archive and other materials, Durepos and her colleagues were able to conclude that the myth of the German threat was only a partial reading of events. Moreover, the construction of the myth can be tied to a series of sociopolitical actions that preceded World War II but were punctuated by the onset of war, which served to "confirm" and "legitimize" previous conjecture. An alternative, but also partial, reading of events suggests that the myth of the German threat, built on a combination of xenophobic fear of strangers and an organizational drive to establish a monopoly situation, served to encourage the U.S. State Department to ensure PAA an unimpeded expansion throughout South America.

The outcome of this and other studies of PAA is to destabilize existing histories not by showing that they were based on partial readings of events but that any history is based on a partial reading of events and is shaped by the sociopolitical contexts in which the historicized subject and the historian were located.

Critical Summary

The development of ANTi-history is in its infancy and is designed not to replace existing mainstream histories with alternative, for example, feminist, Marxist, or postcolonial, histories but rather to encourage stories of the past that serve to destabilize existing histories and surface the marginalized, the hidden, and the denigrated in history. This does not mean the end of history per se but rather a pluralizing of historical accounts that recognizes and celebrates the problematic nature of history and its link to knowledge, power, and identity. It involves a careful balance between developing histories that do not, in the process, privilege history in the development of cultural knowledge of all kinds. It involves the careful development of storytelling that serves to tell a tale without telling the tale. It involves giving voice to a plurality of voices without deemphasizing any of the voices. It involves surfacing hitherto marginalized voices through histories that simultaneously legitimize those voices while delegitimizing the project of history itself. These are all serious challenges to the acceptance and viability of ANTi-history but, arguably, well worth the effort.

Albert I. Mills and Gabrielle Durepos

See also Actor-Network Theory; Critical Discourse Analysis; Poststructuralism

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ARCHIVAL RECORDS AS EVIDENCE

Archival records are an invaluable tool of data gathering for case study research that is focused on the past and its impact on the present. The careful analysis of archival records can provide valuable information on the life, concerns, and aspirations of individuals and groups, as well as on the activity, structure, mission, and goals of associations, organizations, and institutions.

Conceptual Overview and Discussion

Archives mostly consist of personal and/or public written documents, maps, and official and private letters, but more recently also of audio- and videotapes, and Internet-based materials have also been included among archival records. For centuries, archives have been gathered, preserved, managed, and analyzed by kings, local and national governments, religious organizations, the army, the courts, the police and the intelligence services, universities, communities, associations, and even individuals. Moreover, the secret archives of the East German intelligence service (the political police popularly known as the Stasi), which has been open to the public since 1991, included about 15,000 transparent jars containing small samples of interrogated victims. To facilitate easy access and analysis. and in order to protect original documents from damage resulting from their frequent use, some

larger archives have started to transfer their written records onto microfiche or electronic support.

Archives whose records are neatly catalogued are easier to access than collections that are not, or are poorly organized. This is especially important for larger archives, where browsing can be time consuming, tedious, and expensive, without guaranteeing an interesting find. By granting access to only a fraction of documents, uncatalogued archives allow for interesting exploratory work, but not for a broader understanding of the activity, structure, and goals of the individual, group, or organization that produced them.

Application

When using archival records as evidence, a number of questions need to be raised. Serious limitations can affect the nature of the questions researchers try to answer and the reliability of their final research results. Some limitations can be mitigated by collecting additional information from sources independent of the archives initially consulted. Other times, however, researchers will need to reformulate their research question to take these limitations into account, and to be aware of the limited generalizability of their research results.

First, questions must be asked about the archival record under consideration. Is the archival record genuine? If not, which of its sections, paragraphs, sentences, or words cannot be dated with precision, and which ones appear to have been modified (added, deleted, altered) at a later time? The history of the record, as pieced together from independent sources and the archive holder, is a good starting point to ascertain how much of the record is genuine, and when (and sometimes even why) changes to it were made (by adding handwritten comments or deleting some words and paragraphs). An archival record will have to be dated, a process that can be difficult as not all archives were fully catalogued, and can result only in educated guesses, as the record might include no indication as to the time when it was produced.

Second, researchers must be aware that not all archives were systematically collected. Some of them do not include many relevant documents, either because those documents were destroyed intentionally or accidentally or because they were scattered among other archived collections. For

example, like most other individuals, celebrity or ordinary folk, Beethoven did not collect all of his personal documents throughout his life, likely because he did not intend to make them available to posterity, because the task would have taken up valuable time he could dedicate to his music, and because by the end of his life the archive would have become too large and cumbersome to access, use, and move around. The digital archive of the Beethoven House in Bonn makes around 26,000 pages of handwritten music sheets, letters, first editions, pictures, and objects available to the public, but these archival records represent just a fraction of all written documents produced and collected by the composer throughout his life. A biographer researching Beethoven's life must thus be careful to supplement this archive with information collected from other sources.

Third, archive producers and/or custodians sometimes willingly destroy or hide material that would reflect negatively on them, their organization, or their country. In 1989, for example, secret agents of the Stasi shredded nearly 45 million sensitive documents, which filled about 16,000 plastic bags. Since the collapse of the Eastern European communist regimes, many intelligence service secret archives have been modified through the destruction and alteration of original documents and the addition of newly fabricated material aimed at hiding the past collaboration with the communist secret political police of prominent postcommunist politicians or to blackmail innocent citizens by portraying them as former secret informers. Many secret documents include handwritten annotations that cannot be precisely dated. According to credible reports, files detailing the activities of victims of communist repression were modified in order to present those persons as victimizers and thus reduce their chance to be elected to parliament. Eastern Europe alone grants citizens, historians, and researchers access to significant sections of its secret archives, but the extant archives differ significantly from the archives as they were in 1989, and as such they should not be accepted uncritically.

Governments and organizations around the world generally do not grant access to their recent documents, and they often keep at least part of their archived records hidden from public sight. Usually, documents produced in the past 30, 50, or 70 years

are not made available in order to protect the individuals who are still living and might suffer if their past actions were publicly exposed. This is the case even when the individuals were involved in human rights abuses, as were junta members in Latin American countries. Even in Germany, where citizens have access to a larger number of documents produced by state agencies than anywhere else, the records of the military intelligence remain classified, as they are throughout the world. Not only governments protect sensitive data. Over the years, several Swiss banks have refused to grant access to information on the accounts and deposits of Holocaust victims, although that information would have helped relatives to recover lost family fortunes.

Last but not least, it is important to remember that the reality as reflected in the archived records might differ from the reality as experienced by the people who lived it. Archival documents often reflect the reality as perceived by the organization or government that produced them. Repressive political regimes monitored a wide range of small social and political trespasses (like telling political jokes) of individuals who did not consider themselves political dissidents or opposition leaders. As Garton Ash explained, as a foreigner visiting East Germany he was perceived as a threat to the communist regime and placed under strict surveillance, although he met people not to spy but to research his doctoral dissertation. A "thick analysis" considering the political and social characteristics of that time and place is a must in order to understand each actor's role in the society. Archival records can be used as evidence only if the researcher knows the historical context in which a record was produced.

Critical Summary

Archival records are an important source of information that scholars in the social sciences and humanities may rely on for case study research. When used systematically together with information drawn from other independent sources, archival records can shed light on the past and its relationship with current events, and can help us to understand the activity, aspirations, and goals of individuals and groups, and the organizational structure, mission, and objectives of associations, organizations, and state institutions. Researchers

must be aware of the possible limitations related to format and the content of the archival record, and use thick description to contextualize the social and political setting in which the document was produced.

Lavinia Stan

See also Data Resources; Depth of Data

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AUDIENCE

Building on the foundations of Erving Goffman's dramaturgical theory, narrative researchers recognize that the narratives we tell are not simply individual endeavors but social ones where we present ourselves to another. Narratives are constructed and performed with the audience in mind. Because of this dialogical element, we may not be able to know the "subject" or "experiences," but solely the narratives.

Conceptual Overview and Discussion

As Catherine Kohler Riessman indicates, the function of narratives revolves around the audience.

Her seven functions of a narrative are tied explicitly to the narrator's intended audience. First, Riessman points out that remembering the past for a particular audience is the most common use of narrative. It is the meaningful retelling of events to someone who may not have been there. Second, narratives are used to present an argument. Narrators present a narration in order to illustrate a point they are trying to articulate. Third, and related to the previous function, narratives can be used to persuade a skeptical audience to accept a particular truth. Not only will narrators present their point of view through a story, but they will also try to get the audience of the narrative to agree with them. The next function Riessman describes is the engagement of the audience into identifying with the narrator's experiences. This is an emotional aspect in that the narrator wants the audience to "buy into" what is being told. Fifth, narratives can be entertaining. Riessman says that this is one of the most overlooked functions in academic circles, but it is probably one of the most common reasons we tell one another stories in a conversation. The sixth function can be the use of a narrative to mislead an audience. A false story could be told so that the audience does not discover a particular "truth" about the narrative itself. Lastly, narratives can be employed to instigate social change. Personal stories can be told in order to make the personal political, so that people will take up a cause.

Application

Riessman applies this understanding of audience in her case study of two men's illness narratives. In this study, Riessman demonstrates how, within each narrative telling, the men are developing and performing their narrative in a way that makes it obvious that the audience is taken into account. Her first case, Randy, demonstrates how the audience is important in realizing which narrative self is performed and at what point in the interview. Two examples of this include (1) how the researcher's obvious discomfort with discussion on exploring homosexual identity steered the narrative in a potential new direction from where Randy would have wanted to go; and (2) how as an academic Randy felt comfortable critiquing the interview process, including that there was an insufficient amount of tape for him to tell all he wished to tell. The second case, Burt, shows how the desire for companionship from the audience, and to reinforce a masculine working-class identity in the face of disability, become central to the narration. This is a heroic tale of survival in the face of many disruptions to Burt's identity (divorce, illness, loss of employment). With a female audience, both narrators construct a masculine narrative that takes this into account.

Andrea Doucet's narrative interpretation of fathers as primary caregivers points to the importance of an epistemology that looks at narratives rather than experiences or subjects. Among her participants were some men who wanted to be sure that the audience knew the sacrifices made in order to look after their children. The sacrifices of leaving paid work and becoming the primary caregiver (very nonmasculine decisions) were often made when the mothers left the home (there were a range of respondents, including stay-at-home fathers, single fathers, divorced fathers, and those with joint custody). The narratives seemed constructed and scripted with the audience in mind. Much like Riessman's case study of Burt, the narrative became what Doucet calls a "heroic narrative" whereby the story is told about the great obstacles the fathers had to overcome, both in the past and present, just as those heroes found in myths. Doucet examines the case of Mick, a primary caregiver. His narrative is ripe with examples of the hurdles he had to rise above in order to provide care for his daughter. Mick constructed and performed a heroic narrative intended to draw upon the audience's emotions and perhaps to couch his situation, stereotypically not masculine, in masculine terms for the female researcher. While not explicitly exploring the notion of audience, Doucet's case of a heroic narrative shows that the researcher, as an audience, is taken into consideration when a person tells his or her narrative. This reinforces the argument that narratives are not just individual's stories but are socially constructed and dialogical.

Critical Summary

When looking at case-centered research methods that seem very individualistic, such as narratives, it is important to realize that an individual's telling of experiences and events has a social element. Narratives are socially constructed and meaningful, which means that they are constructed for someone to hear at a particular place and time. This goes beyond Goffman's theoretical understanding of the performance of self, as narrative researchers' awareness incorporates not only the individual but also the social structures and relationships that surround the narrative.

L. Lynda Harling Stalker

See also Character; Dramaturgy; Narrative Analysis; Narratives; Self-Presentation; Storyselling; Storytelling

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AUDIOVISUAL RECORDING

The ability to record sound and moving images offers an exceptional asset for case study research in such areas as language development, education, or medicine. Recent audiovisual technology has overcome the primitive and cumbersome aspects of early recording devices. Among these advances is the development of digital repositories that can store vast quantities of audiovisual data for access by large numbers of researchers.

Historical Beginnings

With the prevalence of television, portable media players, and audio- and video recorders, it is hard to imagine a world that lacks the ability to record speech, music, and visual motion. Yet the phonograph and the movie camera are only over a century old. These early devices were primitive by today's standards. Their value for single case research was nevertheless recognized early on. Experimental photographer Eadweard Muybridge,

for example, was commissioned by Leland Stanford of California in the 1870s to document the motion of a race horse so as to determine whether all four feet left the ground simultaneously. Muybridge's success, through a technique of using multiple cameras in fast succession, influenced Etienne-Jules Marey in France to invent a single camera that could take 60 images per second. Marey's motivation was his research on animals. With access to the individual film frames, he published his results on physiology and locomotion in scientific journals. For most of the world, however, his invention was linked to entertainment and the motion picture industry, although Harvard Professor Hugo Münsterberg also foresaw the educational potential of film (then called the photoplay).

In the realm of audio recording, almost immediately after Thomas Edison developed the phonograph in 1877, the musicology community seized upon this new technology to support the field of comparative musicology. Thousands of cylinder recordings were made by multidisciplinary teams of anthropologists, sociologists, psychologists, ethnomusicologists, and musicologists across many countries. Such collections have been preserved in Britain, Germany, the United States, Canada, and elsewhere. The recordings faithfully represented temporal nuances, in spite of noisy acoustic quality. The most well-known collector was Austrian musicologist Erich von Hornbostel, first director of the Berlin Phonogram Archive. Once accessible only to researchers living in or visiting Berlin, the recordings are being made available digitally over the Internet or on compact disks.

Application

The Harvard psychologist and assistant professor Roger Brown was among the first to use high fidelity tape recording for case study research. He and his students visited three children, named Adam, Eve, and Sarah, regularly for over a year. The researchers recorded discourse with each child and then faithfully transcribed the records for analysis. Common patterns of language acquisition were found across the three children, although the absolute onset of acquisition of various language skills varied. The data refuted a reinforcement theory for language acquisition. For example, correction of poor grammar or praise for correct grammar had

little effect. The painstaking data transcription and analysis revolutionized the psychology of language by providing a new foundation for the field.

Subsequently, Brian MacWhinney and Catherine Snow proposed a computerized library for discourse research whereby transcripts could be shared across researchers. In 1984, CHILDES, the Children's Language Data Exchange System, was born to house the transcripts of discourse obtained through research. The system eventually included a coding system (CHAT) and an analysis system (CLAN) that researchers needed to learn in order to use the database to store or analyze transcripts. CHILDES enabled researchers interested in similar questions to share the data without each having to collect it independently. The system proved useful, with over 100 researchers entering their linguistic data, leading to more than 2,000 research publications by them and others who accessed the database. Whereas CHILDES originally stored text transcripts, more modern technology has enabled storage of the sound files themselves. Further technological development has led to the possibility of storing video records, also valuable to psycholinguistic research, for example, for representation of facial expression, gesture, interpersonal relations, and environmental context. The TALKBANK project followed upon CHILDES as a repository for audiovisual records of conversation and communication, of both humans and animals.

More recently, an even greater level of linguistic detail is being recorded for a single case, the child of two academic parents. The father, Deb Roy, heads MIT Media Lab's Cognitive Machines research group. The mother, Rupal Patel, directs the Communication Analysis and Design Laboratory of the Department of Speech-Language Pathology and Audiology at Northeastern University. This Human Speechome Project creates the most comprehensive record of a single child's development to date. Virtually everything that the child sees and hears in his home is recorded minute by minute, thus providing a record of the environmental stimulation potentially influencing language development. The system includes 11 motion-activated video cameras, and 14 microphones. The data are transferred for storage to a bank of 10 computers with a high storage capacity that are kept in the house. When the capacity is filled, the data are transferred to a larger facility at MIT, freeing the space at the home base. The amount of data available for analysis exceeds the capacity of even a group of human researchers, so semi-automatic data coding methods, referred to as TotalRecall, have been developed. From this single case, general principles of language development are expected to emerge that may determine the extent to which semantic and syntactic acquisition arises from exposure to specific incidents of speech.

Audiovisual recording also facilitates educational research. Researcher Victoria Armstrong and teacher Sarah Curran have reported a study of four teachers' incorporation of interactive (touch sensitive) whiteboards for class use. In this study, for each of three different one-hour segments of teaching by each of the four teachers, two video cameras were employed to focus on the entire class and its object of attention (e.g., the teacher and the whiteboard). The two video streams of information were played back on a split screen and the transcript of all important speech was superimposed on the screen. A videodisc was made of this information and each teacher was asked to review the videos of his or her class and to select the most important segments for discussion. The researcher viewed all of the videos. At a later stage in the project, a software package was employed to assist with coding such that each label used had a separate parallel timeline. Discussion of entire patterns of parallel annotations by researcher and teachers led to an overall understanding and interpretation. The outcome was the enabling of new ways of thinking about the complexities of classroom practice.

A comparable example in a medical setting is the use of continuous video recording of nurses tending to patients with a particular illness. A study by Christina Andersen and Lis Adamsen revealed both effective and negligent behavior of nurses in the context of the reactions and behavior of five cancer patients. The nurses, for example, communicated about physical care rather than the psychological needs of the patients, supporting initial hypotheses tested by the research.

Critical Summary

Whether in developmental psycholinguistics, education, medicine, or some other field of research, what characterizes the use of audiovisual

recording for case studies is the provision of infinitely rich detail of transient events—records that can be analyzed, reanalyzed, and annotated by one or many researchers. Present digital technology puts audiovisual recording methodology in easy reach from the standpoints of raw data collection, access, and sharing. Yet, the exploitation of these data is in its infancy because having access to this vast amount of data is so new. Many coding schemes and systems are being developed for storage, analysis, and data sharing. In addition to the unprecedented magnitude of data, challenges in the use of audiovisual recording for case studies include the time consumption for data collection and subsequent coding and transcription, choice of coding standards, privacy and other ethical issues, reliance on collaboration, data backup systems, and questions of validity (the effect of camera or videographer on participants).

Annabel J. Cohen

See also Analysis of Visual Data; Archival Records as Evidence; Coding: Open Coding; Coding: Selective Coding; Discourse Analysis; Longitudinal Research; Multimedia Case Studies; Visual Research Methods

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AUTHENTICITY

Within philosophy the question of authenticity is essential to any notion of the "good life" and venerable as the Socratic argument: The unexamined life is not worth living. Authenticity, the quality of being authentic, is a central philosophical and ethical concept found in the works of Jean-Paul Sartre and others such as Lionel Trilling and Charles Taylor. Case study and qualitative research can be considered valid only if the collection, interpretation, and assessment of data are authentic. Within the social sciences some notion of authenticity is germane to the objectivity controversy.

Conceptual Overview and Discussion

Sartre's juxtaposition of subjectivity and objective reality underscores the feminist, postcolonial, and postmodern critique of objectivity. For Sartre, authenticity is the opposite of bad faith and refers to the alignment of subjective consciousness (i.e., *pour-soi*) with its objective reality (i.e., *en-soi*). One implication of this dualism and the problem of bad faith is that all knowledge is biased. This question has been taken up by the postpositivists (e.g., feminist, postmodern, postcolonial, queer theorists) in their critique of positivism.

The postpositivist argument is that from within the positivist paradigm, researchers (i.e., the subject) are required to study human phenomena (i.e., the object) objectively. Objectivity is possible only when researchers approach the object(s) of their research with impartiality and with dispassion so as to avoid contaminating it and thus to minimize and hopefully eliminate bias. This, the postpositivists argue, is impossible because objective reality and the subject are always in the process of becoming and can never be apprehended other than through preconceived and always partial frameworks or paradigms. Therefore, all research is contaminated by researcher subjectivity and what comes to be accepted as true is merely that which is accepted as such by tradition or authority.

Given the hierarchical basis of tradition and authority, all subjectivities and by extension all research serves some, usually dominant (e.g., male, modernism, imperialism, heterosexism) as opposed to other, often subordinate (e.g., female, Islamic or

Christian fundamentalists, indigenous peoples, homosexuals) interests. Further, the objectivity parameter is morally indefensible because it preempts and silences these alternative voices. If no one subjectivity can claim ultimate truth, then all subjectivities are equal; thus, the voices not only of the researcher but also those of the researched must be collected, analyzed, and interpreted. This leads to the criterion of reflexivity.

Finally, if no one voice can be privileged and all voices are biased, then truth is always conditional and can emerge only through mutual interrogation and consensus in situ. This leads researchers to adopt a participatory action-based approach. Among case study and qualitative researchers, the question of authenticity is an important concept that leads to the debate on validity and how to collect and assess trustworthy data as well as their interpretation.

Contemporary researchers have solved this dilemma in a number of interesting ways. Egon Guba and Yvonna Lincoln, for example, argue that the question of validity is by definition one of authenticity and have identified five criteria: fairness, ontological authenticity, educative authenticity, catalytic authenticity, and tactical authenticity. Fairness refers to the necessity that there should be a balance of voices such that all contributors to the research project are heard. Ontological and educative authenticity refer to the necessity of raising awareness among participants in and those affected by the research. Catalytic and tactical authenticities refer to the prompting by the research of interest-based action among research participants and the involvement of the researcher in educating them, if it is so desired, for political action, and the furthering of positive social change.

Application

In facing the question of authenticity and mirroring the five criteria provided by Guba and Lincoln, Russell Bishop, based on a review of the existing relevant literature, has demonstrated how most research on the Maori peoples of Aotearoa/New Zealand has tended to serve and perpetuate colonial interests, denigrate Maori values and practices, simplify and misrepresent their knowledge, and thus create and perpetuate their subordination. In reaction to researcher colonization, the Maori have

become increasingly concerned about to whom researchers are accountable, who has control over the content and dissemination of research findings, as well as who will gain from it, and as a consequence are now demanding full participation within and control of all research pertaining to them.

To avoid these problems and to assess and ensure the authenticity of further research, the Maori concerns, which by extension would be those of all researched groups, particularly those holding subordinate status positions, are summarized by Bishop. They are: initiation (how does the research originate, by whom and for what purpose); benefits (who will gain from it); representation (are the findings trustworthy, and whose depictions of reality will be presented); legitimacy (are alternative or subordinate voices being heard or silenced); and accountability (who has control over the initiation, data collection, termination, and dissemination of the research). Bishop bases these criteria for research findings on a series of reports that have adopted a postcolonial approach.

He concludes that for researchers adopting a postcolonial framework there are two important requirements and consequences of the endorsement of authenticity. They are: (1) researcher reflexivity and the recognition of and integration of authentic Maori values, beliefs, and practices resulting in the creation of valuable new knowledge; and (2) the development of awareness that can point the way forward to fresh and positive social change.

Critical Summary

The research agenda suggested by an adoption of the concept of authenticity in practical terms is without doubt beneficial; however, the logic and implications of the philosophical argument underpinning it have come under scrutiny. First, if researchers accept the doctrine of authenticity, then by definition they have accepted a viewpoint originating in the external world and are thus unauthentic. Second, if all persons act authentically and solely on the basis of their own self-interest, there is no overarching guarantee of group consensus or solidarity. Third, the concept of authenticity emanates from the essentialism of Enlightenment philosophy that posits a false distinction between subject and object/consciousness and the external world that is a logical contradiction

because subjects and their objects are inseparable and thus their separation is now recognized as artificial. In sum, while the idea of authenticity may have informed a very welcomed move to more open, innovative, multivocal, and participatory research agendas, the research field, as Guba and Lincoln outline, is presently a cacophony of paradigms—from positivism to postpositivism, and critical theory to constructivism—and their associated methodologies ranging from experimental and quantitative, modified experimental quantitative and qualitative multiplism, dialogic/dialectical, hermeneutical/dialectal to participatory action, shared experiential and autoethnographic. Mutlivocality is at times too raucous for the listening ear.

Janet M. C. Burns

See also Objectivity; Postpositivism; Reflexivity; Validity

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AUTHENTICITY AND BAD FAITH

Authenticity and the related notion of bad faith are specific concepts and concerns found in the works of the French writer and philosopher Jean-Paul Sartre (1905–1980). These ideas can be applied to case study research as an approach to understanding situated individual freedom as well as an ethics of personal freedom of choice.

Conceptual Overview and Discussion

Sartre was largely concerned with freedom, responsibility, and ethics, and he explored these themes through his plays, novels, and his best-known philosophic treatise, Being and Nothingness: A Phenomenological Ontology. Crucial to understanding Sartre's notion of how one is to act authentically (in Sartre's terms, this would be seen as acting in good faith) is understanding the fundamental nature of how we exist in the world. In his ontology, Sartre describes two main groups of things: those that are so-called being-in-itself things that do not possess freedom of choice (e.g., a rock) and being-for-itself things that do possess freedom and choice (i.e., human beings). Creatures of free choice commit bad faith when they act as though they do not possess this innate freedom. This is therefore seen as acting in a fundamentally inauthentic manner, based upon the denial of one's own innate ability and freedom to make choices.

According to Sartre, there are a variety of ways in which an individual may act in bad faith. These examples he places in some broad categories. For instance, simply denying our own freedom of choice is one way to act in bad faith. Beyond this simple denial of freedom, Sartre also details a number of social situations that represent nuanced ways in which we might act according to the wishes of other people, thereby effectively denying ourselves our innate freedom of choice. These social situations are broadly termed being-forothers. In essence, to deny either our own facticity (i.e., the given aspects of our situation, such as where we were born or our past choices) or our transcendence (our ability to choose to become something different from what we are) is to act in bad faith. If we privilege one aspect of our beingfor-itself (facticity or transcendence) over the other aspect of our existence as creatures of choice, we act in an inauthentic manner. In Sartre's philosophy, to accept and to actively make decisions based upon the sometimes ambiguous interplay between these two characteristics of our existence is to act authentically and therefore in good faith.

Application

There are a few notable examples of the specific application of authenticity and the ethics of good and bad faith in the broad range of case studies. Perhaps unsurprisingly there is evidence of the use of the ideas surrounding freedom and authenticity contained in Sartre's own works. These works of philosophy, plays, and other artistic works are prime examples of the existentialist idea of "committed literature," which is in itself a type of case study.

One of Sartre's best-known cases for the examination of the bad faith trap found through beingfor-others is found in Being and Nothingness: A Phenomenological Ontology. Sartre spent much of his time writing in cafés, so his use of the particular case of a waiter acting in bad faith is not surprising. Sartre describes how this particular waiter is playing at being what he thinks a waiter should be. The mannerisms, timing, and actions are all studied and practiced in such a way that the waiter is treating himself as though he is nothing more than a thing (in this case, a waiter in a café). This man is acting in the manner in which he knows others expect a waiter to act. He is acting as more of a waiter than any waiter could be. In doing so, the waiter is effectively denying his transcendence; by example, he is refuting his freedom to be other than a waiter. Thus, by treating himself as a beingin-itself thing (in this case as the very sort of waiter that is expected by others), he is acting without authenticity and in bad faith. Through describing this case, Sartre captures the sense of the ethical transgression found in the bad faith act of denying one's own freedom, particularly through accepting the constraints found when acting within limitations placed upon us by others.

The use of authenticity and bad faith in case studies goes beyond the examples and literature from philosophers such as Sartre. Svejenova examines the case of a famous Spanish filmmaker to uncover processes involved in authenticity-driven creative career choices. In this study, while not specifically citing Sartre's concepts of good and bad faith, the operationalization of the term authenticity clearly encompasses the balancing between facticity and transcendence so necessary for a Sartrean view of authentic being. In the context of a troubled-youth residential treatment program, Leveille offers an assessment of the problems and benefits of using a phenomenological approach to such treatment. Authenticity and the problems of balancing the requirement to both treat the residential program attendees as being authentic while simultaneously expecting councilors to act authentically are explored. The author implicitly highlights the difficulty faced when one individual's freedom of choice is confronted by another individual's freedom of choice; the so-called *problem of the other*. This particular challenge is well described by Sartre as "the look" and is part of the profound difficulty in acting authentically, especially when we feel the limitations placed upon us by the conceptions of others.

Finally, there is some appropriation and use of Sartre's existentialism, more specifically discussions of good and bad faith, in the organizational analysis literature. Yue and Mills apply Sartre's existentialism to an examination of the process of organizing and identity construction within a team of mountaineers. Through combining the ontology of Sartre and the sensemaking epistemology of Weick, the authors explore what happens during the interruption of organizing processes. Using the tale of two climbers and their near tragedy in Peru as a case study, the authors illustrate how the freedom to choose one's own identity is essentially a survival trait evidenced during the collapse of an organizationally based identity. This freedom is seen as evidence of an ethical imperative to act in good faith, even in terms of how an individual creates his or her own identity. In this way, the facticity of an individual's situation is intertwined with the individual's quality of transcendence such that we are given an example of how authenticity may be played out in the most extreme situations.

Critical Summary

Applying Sartre's concepts of authenticity and bad faith in case research offers a unique opportunity to use a particular concept of ethics to understand how individuals navigate their choices and the consequences of such. Acting authentically in this respect requires that individuals recognize the full range of their choices and make informed and active decisions. Through honoring both the facticity of their situation and at the same time their capacity to transcend, individuals may be seen as acting in good faith. Likewise, a denial of free will constitutes acting in bad faith. In case studies, this interplay may be examined in terms of a particular decision or patterns of decisions as well as implications for the self and others. Treating oneself as having no choice, or acting unthinkingly in accordance with others'

conceptions of us is inauthentic. Thus, Sartre's contention that to act ethically is to act authentically (in good faith) is an individual centered ethics; one not constrained by external standards or conventions. Indeed, to act unthinkingly in accordance with an external set of rules would fundamentally be an inauthentic act of bad faith because authenticity resides uniquely with each one of us. Essentially, individual responsibility remains at the heart of Sartre's concepts of freedom and likewise forms the core of any case analysis that makes use of the same.

Anthony R. Yue

See also Existentialism

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AUTHOR INTENTIONALITY

Author intentionality in case study research refers to the rationale, set(s) of reasons, or circumstances that have led to the conception, design, and implementation of a particular study. Simply put, what factors contributed to the author's interest and approach to a particular study?

Conceptual Overview and Discussion

Author intentionality may be declared, implied, or inferred depending on what authors choose to reveal about themselves or their motivation that might provide added value to understanding aspects of the approach to problem conception and formulation.

In declared intentionality, the author openly professes orienting perspectives that underlie rationale, problem-posing, or methodology. A declaration such as "I teach learning disabled kids in a public school, am studying cognition, and want to learn more about the poor reading skills of young males" made as part of an introduction or in a biographical note gives the reader an inside track. Detectable in the declaration are the author's profession, professional interests, and location of work as well as likely qualifications, educational background, and current academic status, in addition to the guiding practical assumption for the main question (i.e., poor reading).

Implied intentionality is less obvious than declared intentionality and follows implicit orientations that are consistent with guidance from a superordinate authority, such as discipline or department expectations might require. If an author is a member of a predominantly behaviorist academic environment, conducts research, and publishes articles in behaviorist journals that invoke principles and practices consistent with behaviorism, it may be assumed that the author is most likely a behaviorist and that the intentionality of her or his research leans in that direction.

Inferred intentionality involves a hermeneutic or interpretative reading of materials where little may be known of the author, such as might occur when referees provide blind reviews for journals or when new scholars encounter names unknown to them. Text in the context of declared or implied intentionality carries both message and messenger. Text without context, or message without messenger, can be judged by the reader only from her or his prior knowledge and on the merits of the text itself. Making the intentions for a particular choice of research topic or approach obvious does not imply any measure of quality or insight.

Author intentionality can be derived from an expressed or felt social or personal need, findings from a needs assessment, response to a funded call

for proposals, or simply heeding the call to publish or perish; all give rise to initiation of research and the engagement of authors. Author intentionality is a double-edged sword in that a champion is often required to bring needed research to the attention of the scholarly community and investigative fruition, but excessive advocacy can represent the same dilemma as experimenter bias in quantitative research in that confounds or alternative explanations of circumstances and findings may not receive the balanced treatment required for robust conclusions. Subjective-objectivity or objective-subjectivity are more than semantic twists and represent a state that many researchers strive for and never quite reach. By virtue of conceiving and undertaking a research project, the attention and subsequent investment of time, energy, and other expenditures create a vested interest on the part of the researcher.

Author intentionality may arise implicitly from tacit assumptions embedded in the personal history of the researcher. Influences from demographic traits such as race, class, gender, geography, political stance, or religious conviction may find encouragement or challenge when reconstructed through the rigors of formal graduate study. If a researcher with a given set of personal attributes or characteristics undertakes a study of a group sharing those characteristics, then a (dis)advantage of insider knowledge may occur. Insider knowledge can be advantageous to the extent that it allows the researcher special insights into issues that those under study experience.

By way of example, teachers who study teaching can be expected to have a range of insider knowledge that encompasses subtleties of teaching not available to a researcher from another field, such as an epidemiologist. However, in teaching, subvariations from (dis)ability or demographics may constrain appreciation of specific perspectives. A teacher of English carrying out research may be aware of, but lack specific knowledge of, dyslexia and its many subtypes, or of critical feminist views of text, subtext, and context that affect understanding the cross-disciplinary fullness of an issue. Author intentionality may apply here as well if the intention of the research is to understand, learn, and discover as well as produce a specific nugget of knowledge about an event.

The disadvantage of insider knowledge includes such situations as perceptual blindness

or hypersensitivity because of situation or event familiarity in which basic assumptions are actually unchallenged or taken-for-granted understandings or principles arising from personal history or uncritically accepted professional experience. For example, in an era of school change, many new policies are put into practice based on research that deals with effective implementation but without initial research determining the actual need for change and the level of expected agreement and cooperation among those affected. Author intentionality as a negative effect may be neutralized to the extent that the author is willing to step aside from personal history and taken-for-granted assumptions and adopt an open-minded inquiring stance.

Application

Max Weber and others have written about and discussed the ideas underlying a verstehen approach in which the researcher first simply seeks to understand the circumstances of the situation in which the study will be located and carried out. Such research by wandering around assists the development of intentionality in ways less affected by predisposition, as the basis for inquiry dependent on perspective(s) brought by the researcher are tempered by deepened understanding and consultation with those under study. Judicious application of "Well, so what?" and "Who benefits?" questions applied to study descriptions can identify and expose interests that might affect question or hypothesis development and choice of methodology and methods that can affect outcome. Bodies of research do exist that stand in opposition to each other, as might be found in studies that support the harm or harmlessness of substances such as tobacco, alcohol, or marijuana, where vested interests may guide author intentionality.

A clear contrast of the types of intentionality is most visible in the works of such writers as Richard Dawkins, whose views of evolution and God exemplify declared intentionality. "Intelligent Design: The Scientific Alternative to Evolution" exemplifies implied intentionality and is produced by writers whose works and words consistently support a creationist or intelligent genre. An example of inferred intentionality can be found in Rushton's *Race*, *Evolution*, *and Behavior*, in which

the author infers individual differences based on race alone.

Author intentionality may also be a necessary condition of discovery in some types of investigative inquiry. Beyond the ever-elusive causal relationships between and among researchable events, the idea of *logical relationships* can be considered. Fostered by a Sherlock Holmes-like disposition, developed through a verstehen approach, felt connections and entertainment of logical relationships between and among events or individuals may assist in the production of issues and questions to be addressed through more structured approaches and contribute to an emergent author intentionality. Observation of increased literacy among young people that focuses on how the capacity to read is best attained (e.g., phonics vs. whole language) will likely experience skewed results unless taking into account the era of J. K. Rowling's Harry Potter books and the subsequent spike in reading interest that also leads to addressing the *what* of reading.

Ex post facto (after the fact) research as considered in quantitative applications draws on cold data used to describe or infer occurrences or patterns in time after an event has occurred. A similar approach is used to conduct biographical or historical research where the author's intention may relate to discovering and illustrating evidence that confirms, conforms to, or contradicts an existing arrangement or interpretation of events or artifacts. History depends on the historian and accounts for variations in rationale and fact interpretation such as might occur in British, American, or Native accounts of events leading up to war and a declaration of independence in the United States. Similarly, the lives and experiences of individuals, schools, communities, and nations may be used to render accounts consistent with and supportive of author intentionality, whatever that may be. Any consideration of historical information must attend to at least two contexts: history as seen in the present, and history as viewed through intent of the author.

Critical Summary

Author intentionality may be used to construct or buttress favored positions, points, or outcomes of research. When such strategies are used, authors are advised to clearly identify affiliations or preferences that cast arguments in specific directions. Otherwise, readers need to use constant vigilance to detect underlying leanings that may distort full understanding or appreciation of the materials presented.

Michael Kompf

See also Audience; Case Selection; Explanatory Case Study; Informant Bias; Researcher as Research Tool; Theory-Building With Cases; Verstehen

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AUTOBIOGRAPHY

In autobiographical case studies, the individual who is the subject of the study writes his or her own life's account. These accounts are in narrative form and include diaries and journals used to record the events of one's life and are generally written with consideration of a future readership. More recently, feminist autobiographical approaches have expanded the literary tradition of autobiography to include not just written but also

spoken and visual genres such as interviews and family photographs. In expanding and revolutionizing what constitutes autobiography, social practices that are a part of our everyday life and mark the links between the personal and the political have been reconstituted as autobiography.

Conceptual Overview and Discussion

The canon of Western autobiography, Phil Cohen argues, has been historically male centered and has featured the life writings of both the elite and selfmade men. An emancipatory vision and practice outside these confines advanced by feminist scholars, particularly over the past 30 years, has taken place alongside postcolonial criticism that has contributed, as Carolynn Steedman notes, to a shift away from a gaze focused solely on the European subject toward that of subaltern and marginalized subjects, such as the working class, women, and people across national and ethnic contexts. Similarly, approaches to autobiography have undergone scrutiny and critique. They have moved from a single emphasis on written literary texts to a proliferation of alternative forms of self-narration that include written texts, oral narratives (the spoken), fictional accounts, curricula vitae (CVs), and the visual.

Tess Cosslett, Celia Lury, and Penny Summerfield, the editors of the milestone book Feminism and Autobiography: Texts, Theories, Methods, feature theoretical advances and research methods that include autobiographical case studies. They identify the development of feminist autobiography in three areas: genre, intersubjectivity, and memory.

Genre. Feminist critique of autobiography as a literary genre whose beginnings arise from the accounts of elite white males is scrutinized for its exclusionary practices. The notion of the autobiographer as a unified, transcendent white subject is questioned. Differences that underscore sexuality, nationality, age, class, culture, and race are interwoven in feminist autobiographical investigations.

Intersubjectivity. This term refers to the examination of the relationship between personal narratives and the public realm. This includes the

examination of how experience is both narratively and dialogically organized. Cosslett, Lury, and Summerfield argue that knowledge of these relationships is central for a nuanced understanding regarding the process of composition through which a narrative is produced. Feminists use interiority because women's narratives are often excluded from the public realm. Intersubjectivity insists that that self cannot be analyzed as an isolated subjecthood, but rather, it must be understood in relationship with others—through which the self is constituted.

Memory. Memory involves recovery of the past. Further, Cosslett, Lury, and Summerfield highlight the importance of the past in relation to a projection of the future. Memories are taken up within the personal and collective realms and are often conveyed through partial, shifting, and contested nuances. Further, memory can carry political connotations in terms of what is remembered (both the silences and gaps) as well as what is forgotten, as Luisa Passerini suggests. Of particular importance is the notion that memory is not just individual but can also be shared, or does not necessarily have a single owner. For example, shared memory is exemplified through the media or through shared rituals.

Application

The work of prominent feminist scholars who dedicate their research to autobiography, such as Liz Stanley, Gwendolyn Etter-Lewis, and others, are featured in Cosslett, Lury, and Summerfield. Their works provide examples of the three identified areas of knowledge in the field of feminist autobiography, some of which are briefly highlighted for their clarity in application:

Genre/Liz Stanley. Stanley's discussion of the epistemological significance of auto/biography disrupts the perception of autobiography as a literary text. She argues that auto/biography should not be confined to written texts but is a part of everyday practices. The focus on epistemological matters provides an analytical tool for examining the relationship between the individual and social structures. For example, Stanley discusses the everyday practice of constructing a CV for a job or for promotion, and the

act of describing oneself to other people as auto/biographical.

Intersubjectivity and Memory/Gwendolyn Etter-Lewis. Etter-Lewis provides an in-depth autobiographical case study of attorney Evva K. Heath (between the years 1897 and 1909). She examines over 101 letters written by Heath to her family (mostly her mother) as a means to build a larger autobiographical narrative. Heath (1880– 1909) was a Howard University School of Law graduate in 1904 and was among a small number of African American female attorneys who also concentrated on women's legal rights. Through Heath's case study, Etter-Lewis provides an example of how the "self" subjecthood (or interiority) can be understood only in relationship with others and moreover within exteriority (the social structure). Etter-Lewis provides an analysis of Heath's "multiple selves" as constantly evolving in relation to external issues.

Consideration of Heath's reader/audience (mostly her mother) was also important to Etter-Lewis in order to critically examine the letters with an eye to interrogate the silences, both what was unsaid and what was constituted through social political contexts. Heath's everyday accounts censored life's sorrows and disappointments. These silences reflect the social political contexts in which her life's writing was taking place and were an outcome of Heath's race and gender within her professional class.

Critical Summary

Cosslett, Lury, and Summerfield argue that the three identified areas reflect the interconnected frameworks currently under debate in feminist autobiographical studies. As such, both the conceptual framework and the application of these approaches are of central importance to highlight in a discussion concerned with autobiography as case study, particularly as they relate to developments and new trends in the field.

Dolana Mogadime

See also Audience; Autoethnography; Liberal Feminism; Life History; Multiple Selfing; Narrative Analysis; Narratives; Poststructuralist Feminism; Radical Feminism; Socialist Feminism

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AUTOETHNOGRAPHY

Autoethnography is a form or method of research that involves self-observation and reflexive investigation in the context of ethnographic field work and writing. The term has a double sense, referring either to the reflexive consideration of a group to which one belongs as a native, member, or participant (ethnography of one's own group) or to the reflexive accounting of the narrator's subjective experience and subjectivity (autobiographical writing that has ethnographic interest). This distinction can be blurred in some research traditions. Autoethnography is sometimes made synonymous with self-ethnography, reflexive ethnography, or performance ethnography, and can be associated with narrative inquiry and autobiography.

Conceptual Overview and Discussion

The emergence of autoethnography as method, text, or concept was described by Carolyn S. Ellis and Arthur P. Bochner, and by Deborah E. Reed-Danahay as a manifestation of a recent reflexive turn in ethnography. Paul Atkinson, Amanda Coffey, and Sara Delamont argued that a diversity of methods and points of view have characterized ethnography since its outset, and the exclusive focus of this turn on methodological innovation, change, and discontinuity gives a misleading account of the field. Nevertheless, anthropology has recently shown a widespread and renewed interest in personal narrative, life history, and autobiography as a result of changing conceptions of self-identity and relations between self and society.

Autoethnography broadly operationalizes three different conceptions of self: *self as representative subject* (as a member of a community or group), *self as autonomous subject* (as itself the object of inquiry, depicted in "tales of the self"), and *other as autonomous self* (the other as both object and subject of inquiry, speaking with his or her own voice). It displays three main intersecting qualitative research traditions: analytic, subjectivist experiential, and poststructuralist/postmodern.

Analytic autoethnography is a subgenre of analytic ethnography as practiced from realist or symbolic interactionist traditions. Here a researcher is personally engaged in a social group, setting, or culture as a full member and active participant but retains a distinct and highly visible identity as a self-aware scholar and social actor within the ethnographic text. Analytic autoethnography differs from analytical ethnography by its increased interrogation of the relationships between self and others and a developed awareness of reciprocal influences between ethnographers, their settings, and informants. Researchers' own feelings and experiences are included in the ethnographic narrative, made visible and regarded as important data for understanding the social world observed, yielding both self- and social knowledge.

Systematic, self-conscious introspection enables the disciplined analysis of personal resonance and the effects of the researchers' connection with the research situation on their actions and interpretations, in dialogue with the representations of others. Researchers are in a paradoxical position in the field: simultaneously insiders of the studied community and outsiders, members of another (academic) community, representing the "ultimate" participant in this dual role. Analytic autoethnography thereby reaffirms the distinctions between researchers and informants, observers and observed, or self and culturally different other prevalent in classical ethnography. It is also committed to an analytic agenda: Developing theoretical understanding of broader social phenomena, grounded in self-experience, analytic autoethnography remains framed by empirical data and aims to generalize its insights to a wider field of social relations than the data alone contain.

Subjectivist experiential autoethnographic writing aims to account for the subjective density of ethnographic field work, often in an expressive, emotional, and existential way. Concrete action, emotion, embodiment, self-consciousness, and introspection shape interpretive tales of the self where the narrators' subjective experience is the central focus of the ethnography. These tales are ideographic case studies or life stories narrating the subjective meanings and human texture of lived experience, usually as first-person narratives by a common or ordinary member of a group or community. Subjective experiential autoethnography investigates subjectivity as a distinct phenomenon in all its emotional, cognitive, and behavioral density.

Personal stories are not a means to an end, as in the analytic tradition, but singular expressions of human life that fill and shape the text. Here the connection of the autobiographical and personal to the cultural and social through thick description has no explicit analytic commitment to generalization, though revealing situated cultural influences and broader social relevance. Subjectivist experiential autoethnography often conveys a specific standpoint or voice accounting for emotional and embodied experience of illness or discrimination, as in healthcare and feminist research. It is often used critically as a political means of expressing the repressed voices of minorities and communities.

Postmodern/poststructuralist autoethnography is a blurred genre of methodological creative practices, texts, and autobiographical performances that turn inward and are waiting to be staged. These contribute to remaking self and identity as a site for the negotiation of social, cultural, and political dialogue, often in a carnivalesque form.

Autoethnography is here mostly evocative rather than expressive, and its relevance is accomplished through a balancing act: Aesthetic concerns are balanced with the sharing of experience, the fragmenting effects of dialogues based on identity, and the need to connect local action to larger social and even global contexts, spaces, and locations. Social and cultural artifacts can be used as forms of autoethnography as they provide a form of selfreference for the members of a particular region or community. Traditional ethnography sees its task as the description, inscription, and interpretation of culture, but from a postmodern perspective the professional ethnographer becomes redundant because everyday practices are increasingly pervaded by impulses for self-documentation and the reproduction of images of the self. The radical dissolution of the ethnographic "I" and eye blurs distinctions between ethnographic representations of others (ethnography) and those others' selfrepresentations (autoethnography).

Application

Autoethnography can take varied forms and genres. In anthropology, it is at the intersection of three genres of writing: (1) native anthropology ("people who were formerly the subjects of ethnography become the authors of studies of their own group"); (2) ethnic autobiography ("personal narratives written by members of ethnic minority groups"); and (3) autobiographical ethnography (where "anthropologists interject personal experience into ethnographic writing") (Reed-Danahay, 1997, p. 2).

In *native* or *insider anthropology*, autoethnography is carried out in the social context that produced it. Its emphasis is not on life story but on the ethnography of one's culture, as with analytic autoethnography. Confessional tales or partial autobiographical accounts have also long been used in analytic ethnographic field work to supplement ethnographic narration and provide the readers with details that unveil how field work was concretely performed, often presented separately from the main ethnographic narrative. Autobiographical vignettes can also enhance the subjectivity and liveliness of ethnographic discourse.

Autobiographical ethnography, including ethnic or indigenous autobiography, presents native life stories having ethnographic interest as life trajectories, and identities are set in their social, cultural, and historical contexts. Using different written genres and methods, ethnography and autobiography are blended into new hybrids: witness narratives in cases of social violence and repression; private folk ethnography in households and specific collective settings; and testimonies of daily life in captivity, total institutions, armed conflicts, or self-reflection on symbolic violence.

Narrative inquiry can provoke identification, feelings, emotions, and dialogue. The development of experiential and postmodern autoethnography has expanded the range of cultural artifacts and textual projects used to document subjective and creative flows of human life. It also blurs boundaries between insider/outsider, subject/object, and ethnographic versus literary genres. Films, diaries, calendars, or children's fiction are now used creatively in addition to autobiography to explore subjectivity and lived experience. Polyvocal texts offer space for expression and evocation of a plurality of voices while responsive reading, reader's theater, or conversations can incorporate direct dialogue. Performance autoethnography engages with creative nonfiction poems, short stories, memoirs, comedy or satire, conversations, and dances as fields of inquiry.

Critical Summary

Early criticism of autobiographical methods in anthropology questioned their validity on grounds of being unrepresentative and lacking objectivity. Recent critiques of evocative and emotional genres of autoethnography have mostly emphasized their lack of ethnographic relevance as a result of being too personal. The elevation of autobiography in personal accounts to the status of ethnographic enhancement, on the grounds of its evocative power or experiential value, has been criticized by analytic proponents for being biased, navel-gazing, self-absorbed, or emotionally incontinent, and for

hijacking traditional ethnographic purposes and scholarly contributions. The proliferation of methodological creativity in ethnographic writing has also been presented as a self-referential sphere of discourse disconnected from practice.

Nevertheless, such critiques should be relocated in a broader reflection on and discussion of the scope, purposes, and forms of ethnographic work itself. Evocative and emotional autoethnography promotes the ethnographic project as a relational commitment to studying the ordinary practices of human life, which involves engaged self-participation, makes sense in the context of lived experience, and contributes to social criticism. Analytical autoethnography finds it necessary to look outward at distinct others in order to generate meaningful social analysis.

Garance Maréchal

See also Autobiography; Ethnography; Poststructuralism; Reflexivity

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B

BASE AND SUPERSTRUCTURE

One of the main tenets of Marx's historical materialism is that societies consist of two main parts: the economic base and the political—cultural superstructure. The *base* is a society's mode of production—its economy and its social classes; the *superstructure* is everything else, including politics, family, law, and religion. The building metaphor of base and superstructure is used to convey the notion that the visible parts of the building, namely politics and culture, are constructed on a more fundamental and important economic foundation. According to the base–superstructure idea, all case study research should aim to identify the economic and class preconditions of whatever phenomenon is being studied.

Conceptual Overview and Discussion

The origins of the idea were partly philosophical and partly political. Philosophically, Marx was hostile to idealism and he affirmed materialism. Politically, Marx dismissed rival forms of socialist thought on the grounds that the road to communism required not a moral conversion in the mind (the ideological superstructure); nor would political change suffice (the political superstructure); instead a socioeconomic revolution in the material conditions of life and in class relations (the base) was needed.

Marx used the term itself when summarizing the materialist conception of history in his "Preface" to

A Contribution to the Critique of Political Economy in 1859. He describes the mode of production as the real foundation upon which arises a legal and political superstructure as well as forms of social consciousness. Social, political, and intellectual life are conditioned by the mode of production.

The metaphor contains three main ideas. First, there is the assumption that society is like a building. Part of the assumption is that society is built or constructed, as opposed to having evolved or grown. Part also is that, like a building, a society is composed of levels such as a basement and upper stories. Yet the likening of societies to buildings did not go unquestioned by critics. Critics charged that societies are not akin to buildings; they are not constructed out of raw materials but instead are composed of specifically human activities; they are far more complex than buildings; they cannot easily be torn down and rebuilt to new plans.

Second, there is the implication that what happens in the economic realm is hidden or taken for granted as is a building's underground substructure. The base–superstructure image is in this way similar to the image of a passenger ship in which the privileged in the upper salons are insulated from the harsh conditions of the stokers in the engine rooms.

Third, there is the thesis that the economic forces and relations of production are more important, influential, and fundamental than any other aspect of life because they are the bases or preconditions of every other social activity. Marxism split into two tendencies on this point. One tendency, sometimes referred to as "vulgar" or "determinist" Marxism,

held that the forces of production and class relations directly control the rest of society. All else is an epiphenomenon. The other tendency, associated primarily with Antonio Gramsci, granted relative autonomy to politics and culture while endorsing economic determination in the final instance.

Application

Among the most important areas of application of the base–superstructure idea have been studies of (a) the preconditions of social institutions; (b) the theory of history; and (c) the preconditions of communism.

Preconditions of Social Institutions

One realm of application concerns the bases of social institutions. Some of the most notable ideas from the history of Marxist thought are in essence applications of the base-superstructure notion. These include the claims that ancient Greek democracy rested upon slavery; that late 19th-century European imperialism arose from a new stage of capitalism; that World War I was caused by economic imperialism; that the institution of the free market has as its precondition class division; or that political democracy is a sham in a class-divided world. But critics argue that social institutions also have other noneconomic preconditions. Social institutions also depend upon cultural supports or military security. Critics also state that notwithstanding their economic preconditions, social institutions also have emergent properties of their own.

In the Marxian view, the preconditions of revolutions are to be found in the base: economic crisis and sharpened class struggle. But Theda Skocpol's case studies of the French, Chinese, and Russian revolutions challenged this notion. The main condition of revolution arose as much in the superstructure as in the base: State breakdown due to military defeat, fiscal crisis, and divisions among the elite were the main sources of those revolutions.

Theory of History

A second realm of application is the theory of history. Although the base–superstructure metaphor gives a static image of a building at rest, Marx's materialism was explicitly historical: Marx called

his approach the materialism conception of history, later shortened to historical materialism. It is a dynamic theory of history in motion. According to Marx's theory of history, the basic entities of history are not states or civilizations, but modes of production. History is the history of successive modes of production from antiquity through feudalism to capitalism to future communism. The sources of historical change arise from the mode of production: Change comes partly from the effects of advancing forces of production and partly from the struggle between classes. The overall direction of history is a progression from inferior to improved modes of production culminating in the best possible mode: communism.

This is to be contrasted with other ideas of the shape of history. One idea is that history comprises three economic epochs: the foraging (or hunting and gathering) age, the agrarian age, and the modern industrial age. (This approach differs from Marxism in disputing the importance of social classes.) Another idea is that cultures, civilizations, religious movements, or ideologies form history's main entities and sources of change. A third is the view that warfare is the main influence on history. A fourth is that the main entities of history are political and geopolitical (regimes, states, systems of states, and empires) while the main source of change in history is the struggle for political power.

In contrast to all the above, a further idea of history is multidimensional. This is the kind of approach associated with Max Weber as opposed to Karl Marx. Multidimensional approaches come in various forms. One would regard each type of human activity as equally influential in shaping history. An alternative would regard the main influences as varying between different eras: in some periods, economic primacy; in other periods, military primacy; in others, cultural.

Preconditions of Communism

Marxism claimed to be able not only to *interpret* the world but also to *change* the world by revealing the preconditions for achieving communism. This third realm of application has led to intense controversy.

The base-superstructure idea aims to offer a guide to how to achieve communism. It advises those who would change history to act not in

political institutions or in terms of ideas, but instead at the level of economic development and at class relations that together form the prevailing mode of production. The key to achieving communism is to transform the base by advancing the forces of production and abolishing classes through the victory of the working class. Both were to be achieved through planning and state control of the economy. For some time it seemed to many that Marxism had successfully identified the precondition of communism. Communist parties across the world were devoted to implementing the formula of transforming the economic base.

Critics make several points. One criticism is that the base-superstructure idea in Marxist theory contributed to the disastrous lack of democracy in communist practice. Marxist theory was in principle in favor of democracy. But, at the same time, Marxist theory relegated democracy to an epiphenomenal or superficial position within the superstructure. The criticism is that the base-superstructure image, by demoting democracy to a secondary position in its theoretical picture of a society, encouraged communist movements to regard democracy as unimportant. Another criticism is that transforming the base is not the precondition of achieving communism. Critics of Marxism charge that there are no such preconditions because achieving communism is a utopian fantasy. Ideas such as the base-superstructure notion that purport to reveal the preconditions of communism are therefore fatally flawed.

Critical Summary

The idea that case study research should consider how economic circumstances, among other things, influence the phenomena under study is uncontroversial. But the idea that case study research should primarily aim to reveal the economic and class preconditions of its subject matter is deeply contested.

Martin Hewson

See also Class Analysis; Critical Theory; Dialectical Materialism; Historical Materialism; Means of Production; Modes of Production

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BAYESIAN INFERENCE AND BOOLEAN LOGIC

Bayesian inference and Boolean logic are logical—mathematical approaches to inquiry that contribute to the construction of sound case studies. That is, they constitute applications of formal logic and statistical reasoning that may enhance case study research.

Conceptual Overview of Bayesian Inference

Bayesian inference is an approach to the interpretation of statistical evidence inspired by the contributions of 18th-century statistical theorist Thomas Bayes. It is based on the concept of conditional probability, in which one recalculates the likelihood of an event based on new evidence, as codified in Bayes's theorem. Bayesian inference introduces the concept of the "degree of belief," emerging through an iterative process, in which successive exercises generate new understandings of reality. It is to be distinguished from traditional hypothesis testing with null hypotheses, Type I and Type II errors, confidence intervals, and critical values.

Bayesian inference produces a conception of the "state of knowledge" at a given moment. The researcher posits prior probabilities, perhaps based on his or her own intuition or on a broader consensus, and these are taken into account as an experiment or study produces *posterior probabilities*. Posterior probabilities represent revised assessments as determined by subsequent analysis.

Following the Bayesian theorem, posterior probabilities can be calculated according to the following formula:

P(H|E) = P(E|H)P(H)/P(E).

P(H|E) is the posterior probability that Hypothesis H is true given that Evidence E has emerged. P(H) is the prior probability that H is true, as assessed before the arrival of Evidence E. P(E|H) is the probability Evidence E would arise given the truth of Hypothesis H. P(E) is the probability of E occurring regardless of the correct hypothesis.

Many critics regard Bayesian analysis as necessarily subjectivist, in that inquiry begins with the researcher's initial judgments (which may be characterized as "biased") and continues to be guided by the researcher's belief. On the other hand, subsequent iterations of analysis may suppress initial biases and introduce grounds for broad credibility. A minority of critics find Bayesian inference consistent with objectivity and Aristotelian logic, and interest in Bayesian approaches is increasing.

Bayesian inference is quite useful in combination with case study analysis. That is, the researcher may consider statistical evidence, make an inference along with an assessment of degree of belief, and then incorporate case analysis, which either reinforces or weakens earlier judgments. Bayesian analysis provides a justification for the integration of multiple methodologies in a single project.

Consider, for example, the effective use of polling in political research. The point estimate of support for candidate or party is of limited value in and of itself. A Bayesian approach builds an analysis conditioned by the estimate but refined through the analysis of rally size, polling place lines, and other factors. Projections of United States presidential elections necessarily combine state-level predictions and the consideration of electoral college scenarios ensuing from them.

Conceptual Overview of Boolean Logic

Boolean logic is a system for performing logical operations in the analysis of sets, or groups, of numbers, objects, or events. It is the foundation of database search engines and the basis of computer information processing. It incorporates the logical operators AND and OR, which are equivalent to union and intersection in symbolic logic. These operators render large databases more manageable; for example, multiple search terms can identify relevant articles from an extensive library of journals.

Boolean logic can be applied in the analysis of organizational states construed as sets. One can

explore relationships among the underlying factors determining membership in sets, even if these factors are qualitative in nature. Venn diagrams provide graphic representations of these relationships, revealing intersections and complementarity, and truth tables list propositions about the relationships. Boolean logic may be particularly helpful in considering organizational processes characterized by equifinality, where multiple paths lead to the same end states.

Boolean logic might be applied in comparative studies of organizational performance, whether with regard to financial performance, social responsibility, or some other dimension. Case studies provide the raw information. The objective would be to illuminate the various paths through which organizational configurations result in the performance in question. Sets are constructed grouping enterprises that qualify on each of the relevant variables. Venn diagrams illustrate relations among the sets. Logical statements utilizing the Boolean operators define potential configurations, and these may be arranged as a truth table to distinguish paths to favorable and unfavorable outcomes. Recent studies of high-performance work organizations identify diverse bundles of human resource practices that are associated with improved quality and implicitly employ a set-theoretic approach.

Critical Summary

Both Bayesian and Boolean logic provide means to construct rigorous and powerful analyses from the building blocks of case study. However, some critics continue to argue that Bayesian approaches are inherently arbitrary and subjective. Boolean logic remains somewhat obscure in social science research despite its particular value in the consideration of case studies.

David Carroll Jacobs

See also Equifinality; Probabilistic Explanation; Subjectivism

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BEFORE-AND-AFTER CASE STUDY DESIGN

A before-and-after case study describes a single example of a phenomenon or experience involving individual, group, institutional, or social responses before and after an event of interest. Completion of a before-and-after case study could do some or all of the following: deepen the understanding of aspects of the *before* period of the case study; identify the pivotal event(s); and clarify the changes in the *after* period. Outcomes of such a study could include theories on the impacts of the events, related change efforts, or future interventions.

Conceptual Overview and Discussion

Case study research has been useful in answering how and why questions from real-life contexts, often in professional practice areas such as education, human services, leadership development, and management. The multiple data sources of the case study from the first period of the research may stand alone, or become the basis for learning about the impact of some pivotal events, and involve a second period of data collection. This second phase of data collection, after some event(s) of interest, is the marker of a before-and-after case study. Beforeand-after case studies provide the opportunity to (a) analyze complex case data, (b) see pivotal events or relationships among the factors affecting the dynamics under study, and (c) gather further data to examine those affects or changes.

The protocol for case study research design suggested by Robert Yin includes (a) an overview of case study and the research questions, topics, and issues; (b) nomination screening and data collection procedures in the field; (c) schedule and deadlines

for case studies from preparation, through site visits, follow-up, analysis, report preparation, and site review of report draft; (d) update of protocol related to literature, hypothetical logic model update (if used), topics, and data collection; and (e) case study report format. In addition, a before-and-after case study includes the pivotal event, and the components of design in the second part of the case. These second section components may include chronological analysis, continuity or changing of evidence sources, prediction of causal factors and subsequent verification, alternative explanations, new theoretical propositions, new descriptions following the pivotal event, and changing rival explanations.

Norman Denzin and Yvonna Lincoln suggest "conceptual responsibilities" in research design that include (a) the case boundaries around the object of study; (b) research question emphasis on which themes, issues, and phenomenon; (c) developing the issues through the patterns seen in the data; (d) triangulating data for important observations and interpretations; (e) including alternative interpretations; and (f) developing generalizations. Case studies may be strengthened by research designs with multiple sources of evidence such as interviews, real objects, archived documentation, recorded observations, and participant observations. Current technologies add many possible tools and sources. A before-and-after case study design would include the differences in data collection sources in the before time period, during the pivotal event, and in the after-event time period. Similarly, the analysis strategy and analytic techniques used need to be described for each time period. For example, an initial theoretical proposition with rival explanations included may have time series analysis added to the second part of the case study after the pivotal event. The purpose of the chronology could be to increase the relationships between patterns in the initial part of the case study and variables introduced by the pivotal event. The use of chronologies and pattern matching could assist with comparisons when research designs were different in the before and the after case descriptions.

One case study or multiple case studies can be included in a before-and-after strategy. Different protocol variables would be described. For example, validity and reliability concepts in data collection and analysis of case studies require different

tactics in different research designs. The traditional concepts of validity (internal, external, and construct concept measurement), and reliability (degree to which the study could be replicated) are conceptually important in study design. For example, Yin suggests theory in single case studies, and replication logic in multiple case studies to test external validity (or generalizability parameters). A conceptual alternative to validity and reliability appears in Thomas Schwandt's describing authenticity or trustworthiness criteria developed by Yvonna Lincoln and Egon Guba for qualitative studies. Included in this alternative criteria are ontological authenticity (enhancement of participants' constructions), fairness (balanced representation of respondents' constructions), educative authenticity (shared understandings of others' constructions), and catalytic authenticity (stimulation to action).

In the academic context, the before-and-after case study has a direct connection with qualitative and quantitative methodologies. Case study methodology choices vary with the questions and purpose of the study. Common elements would be development of research questions; method for choosing participants; informed consent; description of the parameters of the study, including ethical considerations, phenomenon, and context; data collection; data analysis; and a case study report.

Application

An example of choosing methodology in one study on effective cross-cultural teachers' multicultural frameworks was the use of James Spradley's 12-step ethnographic interview sequence. The interview sequence provided direction in steps to identify participants; ask descriptive, structural, and componential questions; analyze the interviews in domain, taxonomic, and cultural aspects; and write the narrative. Spradley's ethnographic methodology corresponded with questions of the study: (a) what are the backgrounds of effective cross-cultural teachers? (b) What are the teaching frameworks of effective multicultural teachers? (c) Can teachers describe their cultural teaching frameworks? The initial participant was both an exceptionally successful teacher recommended by her principal, student teachers, parents, and university partners, and also very articulate on all three questions. In this research the data complexity before

led to consideration of further interviews. The impacts of a *pivotal event* in education (implementation of the No Child Left Behind, or NCLB, legislation) had dramatically impacted U.S. teachers' views on classroom work. Public Law 107-110 (NCLB) was proposed by then-President George W. Bush, and signed into law on January 8, 2002. Main provisions of the law, according to the California Department of Education, include standardized testing to measure "adequate yearly progress," complex regulations for "highly qualified teachers," and mandated consequences for underperforming schools. The willingness of the case study teacher to participate in further interviews led to an *after* period of data collection in 2006.

The before of the case studies was teacher frameworks prior to the legislation in 2001, the legislation and policies and practices from the law were the pivotal events, and the after was teacher frameworks in 2006—after 5 years of NCLB implementation in schools. In the example described, detailed ethnographic methodology was used to develop the before part of the case study. Six years later, the methodology chosen for the after part of the study was institutional ethnographic tools, as it was institutional dynamics that had most strongly impacted the experiences of the teachers in 2006. The choices of which methodologies to use (after the case study form or strategy for data collection and analysis is decided) depend on the research questions and purpose. In the crosscultural teacher example, a culturally descriptive and specific method was needed for the first period of data collection in three specific areas related to acculturation (teacher background) and a cultural practice (teaching). Six years later, an institutionally responsive inquiry method was needed to describe the institutional changes and their impact on teachers' experiences.

The researcher had not imagined or planned the pivotal events (federal NCLB legislation) that impacted every school in the United States. However, having studied a case of an exceptional cross-cultural teacher done in 1999–2001, the idea of looking at the impact of the NCLB legislation with an experienced and articulate teacher, already on record, was a chance to document what many teachers in the school districts around the researcher were discussing in parking lots and over coffee. The before-and-after case study presentation provided a

way to impact a teacher education program dealing with those changes. In other examples the events of interest may be historic, concurrent, or a part of the study.

Methodologies after the data collection choice for a case study is made vary from the detailed structure of multiple stage taxonomies in the data collection and analysis of Spradley's classic ethnographic interview sequence, to less structured methods; for example, using coding categories in a straightforward reporting of evidence. Yin lists evidence sources for case studies as documentation, archival records, interviews, direct observation, participant observation, and physical artifacts. Once the data from these sources are analyzed, theory building may result—and include all three periods, or focus on the before period, the pivotal events, or the after period. For example, in the teacher multicultural framework study, all three periods were included and resulted in a picture of the impact of NCLB on one very effective teacher who was taking steps to leave the profession 6 years after the before part of the study when she was fully engaged in complex cross-cultural learning strategies. A theory of dominant culture backlash to multicultural education successes was included in a presentation to a School of Education faculty and precipitated development of a doctoral program for leadership in this area. Decision makers may use before-and-after cases to discover the impacts of pivotal events, to increase successful interventions, to formulate theory to test in practice, and so on.

Critical Summary

Before-and-after case studies are particularly useful for understanding specific contexts where the how and why of behavior are important, the context impacts the behavior, and there are pivotal events impacting people. The pivotal events may be theorized, part of historic records, an institutional or social dynamic, planned or unplanned. Before-and-after case studies can also direct research into new avenues of study on old issues. One example of this redirection was the resiliency case study research of the 1990s that focused on the factors enabling some students to be successful in circumstances where other students were leaving school and encountering multiple developmental challenges. The cases describing factors in

student success assisted educators in building in more of those factors for students in their high schools. Numerical data may be clear, as in the case of Los Angeles high school dropout rates, but the many factors involved in the how and why of dropping out were not clear. Both before and after graduation there were pivotal events impacting whether the cases (students) left or stayed in high school. Before-and-after dropping out studies helped identify those events.

A limitation involved in before-and-after case studies is the additional time in extending data collection with the *after* period. The ethical considerations can also be daunting. One example from the multicultural teacher framework study was the impact of participants seeing clearly the factors in their lives that are impacting them, which required thoughtful follow up from the researcher. However, the time is well spent when an important area of study is seeing little progress, such as minority student success in Los Angeles high schools, or Canadian Indigenous student's graduation rates from secondary programs.

An exemplary before-and-after case study, according to Yin, would make a significant contribution to the field, be complete in studying the phenomenon and the context, offer a collection of extensive and relevant evidence, include the consideration of alternative perspectives, and be written in an engaging manner.

Verna L. McDonald

See also Comparative Case Study; Cultural Sensitivity and Case Study; Ethics; Ethnography; Longitudinal Research; Pattern Matching; Theory-Building With Cases; Validity

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BLENDED RESEARCH DESIGN

Blended research design refers to a research approach that consciously mixes research methods in an effort to get a quality and breadth of information that reflects the complexity of the setting being studied.

Using the history of technological case studies as an example, the following entry describes the progression toward a blended research design that includes both qualitative and quantitative components in the case study approach.

Conceptual Overview and Discussion

The early history of pedagogical research surrounding technology is best summarized in the meta-analyses done by Chen-Lin Kulik and A. James Kulik. Their studies concluded that computer-based learning approaches show potential for improving student achievement, saving student and teacher time, and improving student attitude toward specific types of schooling. The earliest computer impact work related dependent and independent variables in decidedly positivist research frameworks. The computer was often regarded as the independent variable; dependent variables included final test scores, scores on standardized achievement tests, as well as such things as attitude measures of content and schooling in general.

Those strictly quantitative studies of comparing computer-based learning with non-computer-based learning have more recently been replaced with a trend toward understanding the nature of students' interactions with computer technologies. Neil Selwyn posits that the overreliance on quantitative descriptive methodologies provides a limited perspective, while qualitative and ethnographic studies have the potential to better describe what actually happens in real classrooms, including the changing role for teachers.

The research on the impact of computer technology on classrooms requires an interpretative lens due to the complex nature of classrooms. There are simply too many variables to suggest

direct cause-and-effect relationships in experimental studies. Not only do the computer and user exert reciprocal influences on each other, but the social construction of knowledge through cooperative learning in these settings involves a sophisticated interaction that invokes notions of symbolic interactionism. The nuances regarding the nature of the learning environment require specific research methodologies that blend both quantitative indicators and qualitative introspection. Quantitative surveys of students and teachers allow the researcher to identify trends, whereas qualitative interviews and focus groups unearth the "reasons" for the trends. Qualitative feedback offers windows of understanding and invokes new questions that would never be evident in statistical analysis of surveys. The quantitative data point the researcher in the right direction with respect to what questions should be asked, and the qualitative feedback enriches the understanding of the system through an emergent process of iterative inquiry.

Progressive research design on particular cases of technology integration in classrooms has the potential to allow identification of new learning modes empowered by technology. Case study research has an important role in responding to emerging research typologies. Significant research guidance has been provided by Margaret Roblyer, who has suggested four distinct types of pedagogical research with respect to technology, namely: Type 1—research to establish relative advantages of technology-based strategies; Type 2—research to improve implementation strategies; Type 3—research to monitor impact on important societal goals; and Type 4—studies that monitor and report on common uses and shape desired directions.

Application

The underlying premise and strength of the blended-design case study is that many sources of feedback are triangulated to yield an understanding of the nature of the learning environment as impacted by the technology.

The case study of technology integration necessarily involves ongoing field notes describing in detail the classroom experience. Typically, teachers and researchers work together as participant observers within an interpretivist philosophical

framework. Following the implementation stage, surveys (composed of Likert scales) are designed, field-tested for ambiguity, revised, and then administered to students. A compilation of the survey data, complete with standard deviation measures, potentially yields statistically significant indications of emergent trends.

Based on the survey data, semistructured openended interviews are designed and field tested for ambiguity (Michael Patton). Using the revised interview schedule, a random sample of students is invited to participate in 30- to 60-minute interviews that are audiotaped and later transcribed. An iterative thematic analysis is done through coding of the transcripts (Miles & Huberman). Results are shared with a colleague in a peer debriefing session in an effort to corroborate research findings. An interview with the instructor is audiotaped and transcribed as a means of further reflecting on the aforementioned research data. The overall qualitative feedback is again compared to the survey data to ensure consistency of findings. A member check (Guba & Lincoln) with the students is achieved through several focus groups. In these sessions the researcher compares the accumulated research findings with the perceptions of the larger group in an effort to uncover misconceptions or misunderstandings or to clarify interview dynamics that may have impacted researcher perceptions. Finally, the research lens is carefully considered in order to ensure that the qualitative data are truly emergent and not predetermined in any way.

Ideally, the findings of technology case studies as described above are most useful to the instructor in terms of promoting more effective instruction while yielding generalizable classroom strategies. Although many research typologies share potential, the technology case study offers a unique descriptive account of the impact on pedagogies.

Critical Summary

The blended research design attempts to combine the most informative aspects of qualitative and quantitative case study data. Triangulating a range of indicators from a study seems a most logical notion, yet the approach is not without critics.

The use of case study for studying technology in classrooms has come under some criticism because of a perceived lack of generalizability. This opinion has been countered by a marked improvement in the "verisimilitude" of setting descriptions. By being provided a rich description of the learning environment, readers get a palpable sense of the nature of the learning atmosphere and therefore assumes a certain comfort with the relative overlap of the described classroom with their own educational setting.

Gregory Rodney Mackinnon

See also Case Study Research in Education; Generalizability; Genericization; Naturalistic Generalization; Qualitative Analysis in Case Study; Triangulation

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BOUNDING THE CASE

The very concept of a case study implies the possibility of demarcating, hence drawing boundaries around, the specific case to be studied, but the term *case study* is often used without a clear conceptualization of what constitutes the case or its boundaries. Furthermore, case studies address phenomena at a wide variety of scales, from whole societies through entities like business corporations or social movements, to more specific settings such as prisons or communities, to more focused scenes of interaction or aspects of biography. Thus it may be difficult to

formulate general principles with which to address the bounding of the case, and the conceptualization of such boundaries is recognized to be problematical, a point Robert K. Yin incorporates into his very definition of the case study as a research design.

It is, nevertheless, important to address the different ways in which case studies can be bounded, and in particular to distinguish between commonsense, theoretical, and methodological ways of conceptualizing the spatial and temporal boundaries surrounding specific case studies. These distinctions can be discerned in the literature, though they often remain implicit. Furthermore, each approach illuminates the processes of designing, conducting, and analyzing case studies, though theoretical bounding arguably remains the most fundamental. This entry provides a conceptual overview of the problem and discusses its application.

Conceptual Overview and Discussion

The Commonsense Bounding of the Case

Case studies are often focused on entities that have relatively clearly defined spatial boundaries as they are experienced and conceptualized in everyday life, such as the borders of states or the walls bounding prisons or schools. Such organizational boundaries are often clearly marked, monitored, and managed. As a consequence, researchers often have to negotiate their access to such research settings through gatekeepers, the relevant "authorities" or other participants who may grant or deny particular forms of access or approval.

Thus case study researchers must always be sensitive to the ways in which social actors, whether onlookers or participants, themselves conceptualize and act in relation to institutional boundaries surrounding the phenomenon being studied. This may be relatively straightforward for formally organized and strongly institutionalized social entities, but setting boundaries remains a concern where boundaries are more amorphous or contentious, say in relation to a neighborhood, gang, subculture, or ethnic group. In these cases the form, extent, and consequences of demarcation, gatekeeping, and monitoring, and hence the extent and character of commonsense bounding, are more evidently problematical but are still significant, both for the conduct of the research and as a source of analytical insight.

However, researchers must also problematize actors' understandings of the bounding of any case study entity, including those apparently more solid and clearly demarcated organizations that seem to constitute naturally bounded cases to be studied. Informants may themselves seek to redefine the ways they understand and experience the boundaries of their activities, and it is likely that competing criteria by which actors bound the case are in play. Furthermore, the permeability or even precariousness of established boundaries may be underlined by the flows of people, symbols, and materials that cross them, highlighting the potential for the reconfiguration of such boundaries. Thus the analytical agendas and empirical investigations of researchers are likely to identify social processes that crosscut dominant institutionalized ways of bounding the case, inviting a reconceptualization of the case in terms that are not simply dependent upon commonsense readings of such boundaries.

The Theoretical Bounding of the Case

The importance of analyzing the scope and significance of the commonsense bounding of cases should be balanced by a critical appraisal of such boundary making. A widespread (though not universal) response among case study researchers is to emphasize the need for a more explicitly theoretical conceptualization of the case under investigation, informed by the analytical themes and research questions that are to be explored. The argument is that particular theoretical approaches inevitably influence the ways in which researchers conceptualize the case they wish to investigate, whether the theoretical conceptualization of such boundaries is made explicit or remains implicit. Thus at each stage of case study research, from the initial design of the study, through the interlocking activities of field work and analysis, to the final write-up, researchers may seek to clarify the implications of their theorizing for an understanding of the bounding of their case.

Such theoretical bounding should permit significant reconceptualizations of the case and its boundaries during the course of the research, though different metatheoretical traditions offer distinctive characterizations of the bases of such reconceptualization. For example, inductivists emphasize that the initial analytical framework

should have a minimal quality, so that fresh theoretical concepts can be generated from a systematic investigation of phenomena within the case. By contrast, critical realists (retroductionists) emphasize the value of a strong initial conceptual framing to guide a process of testing and theoretical revision. In either case, theoretical reappraisal may involve transgressing the initial analytical boundaries of the case, to widen or simply redraw those boundaries in the interest of fresh analytical leverage and theoretical clarification.

The Methodological Bounding of the Case

Theoretical reconceptualization of the boundaries of a case study may suggest that the scope of the study should be extended. Yet practical constraints, including such critical issues as the time frame for the study, the availability of resources, the commitments to funding bodies, and the negotiation of appropriate access, may preclude pursuing any substantial redrawing of the analytical boundaries of the case. Indeed, case studies, by their very nature as detailed investigations of a specific case, always face practical limits on the extent to which they can extend their analytical scope without jeopardizing their strengths as intensive and/or holistic analyses. This makes the methodological bounding of any case study, the way in which the detailed investigation of the case is set within a more summary account of the wider context that surrounds that case, a pivotal feature of the demarcation of the case to be studied.

Such methodological bounding distinguishes between internal contextualization, which is intrinsic to the configurational and often holistic analysis of case study research, and external contextualization, which in more summary fashion places any given case study in its wider context. The methodological implications of this contrast are clarified in Michael Burawoy's discussion of the extended case study method. He suggests that these wider features of the external context are, from the vantage point of researchers studying a specific case, necessarily hypostatized as a set of given conditions surrounding the case, rather than being available for intensive investigation in their own right. Thus methodologically they represent the bounding of that specific case, in a way that continues to register the actual or potential analytical saliency of these wider features but does not subject them to any detailed processual investigation.

Again, the ways in which such features are conceptualized will depend upon the metatheoretical and theoretical approaches of different researchers, but the crucial point is that they can be registered only in summary and reified terms for the purposes of a specific case study analysis. Both theoretical models and empirical findings may point to the salience of particular external features for an understanding of processes within the case, and thus influence the way in which a specific case is externally contextualized, but inevitably this will constitute an abbreviated framing in comparison with the elaborated internal detail of the case itself. Those features that constitute the external context for any given case study remain open to detailed investigation in another case study, but any such study would itself have to be methodologically bounded by another reified external context, within which the new intensive study would be framed and located.

This characterization of the methodological bounding of case studies through the conceptualization of an external context has important implications for thinking about possible linkages between different case studies. First, research may move from the summary specification of the wider context to a more systematic investigation of some aspects of that context. Thus, smaller case studies may be nested within larger ones, as with studies of subject-specialisms within a school, or workplaces within a local labor market. Here the bounding of the case in terms of its reified external context moves outward as the larger case study takes shape, though the smaller case studies may also retain their own analytical value and distinctiveness.

Second, contiguous case studies may illuminate linkages and flows across the conceptual and substantive boundaries between such cases. Examples would be the linkages between case studies focusing on the development of government policies within the political process and those addressing the reception and implementation of such policies within state agencies, or studies of the operations of enterprises at different points in a design, production, and retail chain. Here specific elements of the external context of one case are translated from reified forces into dynamic processes, opening the

possibility of reconceptualizing the component cases as phases of a more dispersed spatial and temporal process while retaining the virtues of intensive internal contextualization.

Spatial and Temporal Bounding of the Case

This discussion has focused on case boundaries conceptualized in spatial terms, but a parallel set of arguments and distinctions is relevant to the bounding of case studies in temporal terms. Case studies are inevitably temporally bounded, though they may look backward to developments that predate the start of the research, drawing especially on documentary sources and informants' recollections, and they may be carried forward through continuing contacts and revisits. In this context, researchers will attend to participants' accounts of distinctive phases and turning points that may characterize case study developments, but they will also need to engage critically with such accounts in ways that are informed by their own analytical concerns.

Furthermore, practical constraints, including exigencies of access and research deadlines, will also set boundaries around the period that can be covered by detailed case study research and analysis. While the engagement between theoretical agendas and actors' accounts should provide the basis for an explicit analytical bounding of the case in temporal terms, this must also be reconciled with the practical temporal realities of data collection. This is likely to require a methodological distinction between the detailed analysis of temporal processes and sequences within the case and a more summary and reified treatment of precursor, and perhaps also consequent developments.

Application

The importance of theoretical concerns in bounding the case is well illustrated by Paul Willis's study of class relations and schooling. His analytical interest led him to focus on a small group of disaffected students and to study this subgroup across several settings—the school, the street, the home, and ultimately the workplace—that have often been the concern of separate case studies. This provided the basis for his influential analysis of key features of their specific subcultural repertoire and the ways in which this served to reproduce their subordinate class location.

Drawing the boundaries of the case study in this way thus had a coherent theoretical rationale.

In turn, however, Willis's focus on the cultural repertoire of this specific subgroup rather than a broader set of students has been criticized from the vantage point of other analytical concerns, for example those concerned with the less clear-cut responses to schooling of a wider spectrum of "ordinary kids."

Tony Elger and Chris Smith provide a good example of the ways in which specific institutional boundaries may be less clear-cut and more contentious than first appears, leading to an analytical and methodological redrawing of the boundaries of case studies. Their research on Japanese subsidiaries in Britain included studies of four enterprises within the same locality, but they became increasingly aware of the ways in which managers from such firms sought to cooperate to manage the local labor market while workers also operated in response to this wider setting and such attempts to manage it. They therefore reconceptualized their research to include a wider case study of these features of this local labor market while continuing to pursue detailed studies of their four firms.

Critical Summary

It is valuable to distinguish three bases for bounding the case in both spatial and temporal terms. The first, commonsense bounding, involves the documentation and critical investigation of the ways in which research subjects themselves experience and enact the boundaries surrounding the case phenomenon under study. The second, theoretical bounding, involves the theoretically informed investigation and analytical reappraisal of the social relations and processes in play in and around the case, which may involve a refocusing of the research within more theoretically refined or coherent boundaries. Finally, the third form of bounding is methodological, as both the investigation and theorizing of the phenomena under study are partitioned into an intensive analysis of the case and a summary characterization of the external context of the case.

These are distinct though interrelated processes. The most fundamental is a theoretically informed characterization of the phenomenon under study, which draws out the basis on which it can be treated

as analytically distinct from wider social processes. Such theorizing has an ambivalent relationship with actors' demarcations of the social phenomena addressed by the case study researcher, taking seriously such bounding but also problematizing its role in analytical terms. Thus theoretical bounding guides and responds to the detailed investigation of phenomena within the case, but case study research cannot sustain such an intensive investigation if it seeks to trace outward all the flows and interconnections that may appear analytically salient.

Here methodological bounding in both time and space becomes essential if the virtues of the case study research design are to be sustained, because it recognizes a heuristic demarcation between the detailed investigation and analysis of phenomena within the case and the more summary and provisional treatment of phenomena that impinge from beyond the case. As theoretically salient forces or processes cross this boundary they are not lost sight of analytically, but their treatment changes. Such a methodological boundary may well be set to coincide with one recognized by the research subjects themselves, but it explicitly leaves open the theoretical significance of such institutionalized boundaries in relation to social processes that cross-cut them. Finally, this focus on the methodological bounding of case studies facilitates an understanding of the ways in which different case studies may overlap or interface with one another.

Tony Elger

See also Contextualization; Critical Realism; Extended Case Method; Inductivism

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Bricoleur

Bricoleur is a French common noun with no precise equivalent in English. Claude Lévi-Strauss used this term in *The Savage Mind* when discussing magic and mythology. For him, magical thought always had a basis in human imagination, which was rooted in experience of some kind. By definition, a bricoleur is a person who can skillfully and professionally complete a range of different tasks. The way it was used by Lévi-Strauss, and many qualitative researchers following him, it refers to the ability to draw on different analytic techniques with which one is familiar, the choice of which to use being situationally determined.

Conceptual Overview and Discussion

For Lévi-Strauss, *bricolage* was used to describe a way of knowing the world, one that would draw upon existing ways of classifying objects and practices. The bricoleur by definition is able to perform a number of different tasks, using whatever tools (mental or physical) are at his or her disposal. In this way the bricoleur is seen to possess a "toolbox" of sorts, one that in the context of a researcher contains different knowledges, perspectives, and techniques; in isolation, they may have no apparent use but are there because past experience or exposure indicates they have been, or have the potential to be, useful.

What bricoleur researchers therefore do is keep things in their toolbox in case they may come in handy at some point in the future. Related metaphors include quilt-maker (who creates a finished product out of scraps of material that otherwise have little use) or jazz improviser (who creates music in unpredictable ways using a repertoire of harmonies and rhythms). Common to these metaphors is a stock of materials from which a finished product is created.

Application

As a metaphor, bricolage is often used to describe a fluid approach to research that might consist of using or doing several different things. As Norman K. Denzin and Yvonna S. Lincoln point out, there are many kinds of bricoleurs; for example, interpretive, narrative, theoretical, political, and methodological. Whatever researchers are trying to accomplish, they do so in an emergent way as bricoleurs use the tools at their disposal, or add new ones to their toolbox as they become aware of new ones. Bricoleurs can even create new techniques if the ones at their disposal are not adequate for the problems being researched, emphasizing the fact that in much qualitative research, not all decisions concerning research design can be made in advance.

This approach to research is therefore quite consistent with grounded theory and naturalistic approaches, both of which emphasize the need to be open to discovery and sensitive to the way research questions and the context in which they are studied are related.

Theoretical and methodological bricolage was used by Sigmund Wagner-Tsukamoto and Mark Tadajewski in their study of the green consumer, which examined how consumers assess the environmental friendliness of supermarket products. At a theoretical level, their use of cognitive anthropology draws on practical thinking that reflects action-oriented learning and intelligence as well as the information-processing and problem-solving tools that individuals are already familiar with. This permits the investigation of how skillful consumers frame a decision-making choice in relation to the subjective perception and construction of context.

This empirical question was addressed by the use of multiple data sources (interviews, observation, and archival research) providing a form of triangulation that helped minimize social desirability biases in their interviews. Their findings showed that consumers were able to deal effectively with informational deficiencies in the context of their

everyday lives, and that consumers sought out the information that was most easily obtained and relevant to their shopping context.

Critical Summary

The metaphor of the bricoleur can, however, be a somewhat pejorative one. This comes from Lévi-Strauss's own writing, where the bricoleur was contrasted to an engineer (ostensibly a more technical person), and thus engaged in a "softer" science. That being said, engineers themselves use a certain set of techniques that they obtain through training—their ability to see beyond personal experience and existing stocks of knowledge is anything but certain. The bricoleur/engineer distinction might therefore not be an important one to make.

What is useful in the metaphor of the researcher as a bricoleur is that it has practical application in studying complex phenomena, where researchers' interaction with their subjects, the possibility of multiple realities, and the unforeseen directions research can take are embraced by an approach to research that can follow a number of different paths, not all of which can be planned for in advance of research being conducted. This allows for greater understanding of existing phenomena, and creates the possibility of addressing questions heretofore not considered.

David Wicks

See also Grounded Theory; Mixed Methods in Case Study Research; Naturalistic Inquiry; Triangulation

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CASE SELECTION

Case selection is the rational selection of one or more instances of a phenomenon as the particular subject of research. The reasons for selecting a case or cases vary from interest in the particular case to theoretical considerations. The relevance of the case or cases for the research objective is the most important criterion for selection.

Conceptual Overview and Discussion

The selection of cases is an essential part of the case study research design. Because of the intensive data collection methods in case study research, the number of research units can be very limited. Single-case designs examine one unit of a social phenomenon, while multiple-case designs compare 2 to 10 cases. This relatively limited amount of research units puts an emphasis on the researchers' justification of the selection of cases. In contrast to survey research, case study research samples are ideally selected strategically rather than randomly. Researchers need to select cases that give a maximum amount of information about the research objective at stake. For example, researchers look for cases that give a maximum opportunity to falsify hypotheses that are drawn from earlier research. Or they select cases that help to identify the specific conditions and characteristics of a phenomenon that has been characterized in only general terms.

The criteria for case selection depend on the type of research question: descriptive, exploratory,

or explanatory. With a descriptive research question, the cases selected should give maximal information about the specific features and characteristics of a particular social phenomenon. With a single case study, researchers look for an average case; a case that is a typical example of a specific phenomenon. They may also select an extreme case; a case where the social phenomenon is visible in a very pronounced way or under extreme circumstances. By investigating such a case in depth, a detailed and elaborate description of the phenomenon is reached. A descriptive research question may also lead to a multiple-case study design, where a series of cases with common characteristics are studied. The researchers focus on describing the cases separately, rather than looking for common patterns and explanations. The specific features and characteristics of the cases are compared. Alexander George and Andrew Bennett refer to this type of (single and multiple) case study as *ideographic configurative case study.*

With an exploratory research question, researchers select cases that maximize the opportunities for developing hypotheses or theories that explain the social phenomenon at stake. Since this is an inductive research design, screening of the cases has to be based on empirical considerations. The researcher selects a single case that obviously differs from other instances of a social phenomenon—this is called a *deviant case study*. Or the researcher selects a case that seems not to fulfill theoretical expectations, with the aim to use the case for the purpose of developing additional theories—this is called a *critical case study design*. Another multiple-case

study design with an exploratory character is the one George and Bennett call the *building block theory*. Researchers screen all instances of a social phenomenon for subclasses with similar characteristics. By systematically describing and comparing within these subclasses, subtheories may be developed that cover a part of the social phenomenon. These may be added to theories derived from different selections of groups.

With an explanatory research question, the selection of cases is based on theoretical considerations. Here a deductive research design is needed, where cases are screened for their ability to falsify theories or hypotheses that are derived from earlier research. This may be a single case study where the adaptability of a theory is first tested to explore whether a more elaborate testing is needed. George and Bennett call this a plausibility probe. It might also be a single case study that tests the ability of more competing theories for explaining the course of events in a particular case. A famous example is Graham Allison's 1971 study of the Cuban missile crisis. Here Allison tests three competing theories that may explain the behavior of the two main actors in this crisis, namely the Soviet Union and the United States. The Soviet Union placed offensive missiles in Cuba and the United States responded with a blockade, rather than an air strike or an invasion. Allison tests to what extent the behavior of these two actors can be explained by considering them like rational actors, like complex bureaucracies, or like groups of persons with a political motivation. This helps to generalize about complex government actions.

There is general agreement that a multiple-case study design offers the best abilities for testing theories or hypotheses because it allows researchers to systematically compare variation between the cases. It is on this aspect the academic debate on case selection has been developed most elaborately. The debate focuses on how to select and compare cases systematically in such a way that theory testing is convincingly served.

The discussion on the selection of case studies goes back to the classical text of John Stuart Mill on the systematic comparing social phenomena. By describing the method of agreement and method of difference, he shaped the base for present-day selection of cases in a multiple-case study research. For using the *method of agreement*, the researcher

selects two instances where the same social phenomenon occurs, but in very different circumstances. By comparing the two cases, the researcher can eliminate all contextual variables that are not necessary for the phenomenon to occur. The variables that the two phenomena have in common are probably the cause of the event that occurred.

When using Mill's *method of difference*, researchers select instances that have the same or comparable circumstances, but that differ in the presence or absence of the phenomenon they want to study. By comparing the cases, the researchers can identify the (small) variation in circumstances of the different cases. The single circumstance in which the cases differ is probably the cause of the phenomenon.

In his influential book *The Comparative Method*: Moving Beyond Qualitative and Quantitative Strategies, Charles Ragin translated Mill's methods in criteria for case study selection. He argues case study research is very suitable for revealing multiple causations of social phenomena. Most social issues that arise do not have a single cause, but are the effect of multiple causes interacting with each other. It is because of the possibility of this multiple causation that Ragin argues Mill's method of agreement is not suitable for explaining social phenomena. Instances that may be caused either by one particular instance or by another particular instance may be falsely judged to have neither of these instances as a cause. He therefore pleads for a double application of the method of agreement, namely the indirect method of difference. Researchers should look for instances of a social phenomenon that have only very few circumstances in common, as well as for instances where this social phenomenon is absent. Only if the circumstances that may explain the phenomenon's occurrence are absent in all cases where the phenomenon is absent can a causal relation be identified.

George and Bennett propose an alternative to comparing the variation between cases, by focusing instead on the variation within cases. They state that selection of cases allows for variation between cases in both dependent and independent variables, on the condition that within-case analysis is used to compensate for the limitations in the selection. They present two types of within-case analysis, namely the congruence method and process tracing. The *congruence method* refers to the

researcher formulating or reproducing a theory and predicting the outcome of the circumstances in a certain case. If the outcome of the case is consistent with the theory's prediction, there is a possible causal relationship between the circumstances and the social phenomenon. The method of *process tracing* refers to the researcher systematically examining the intervening steps between initial conditions and the occurrence of a particular social phenomenon. By making a detailed analysis of this process, the list of potential causes is narrowed.

Application

An example of the use of the method of agreement can be found in a comparative case study research by Inge Bleijenbergh and Conny Roggeband. They test three hypotheses on the relationship between political pressure from women and policy change regarding work-life policies in Western European welfare states. The hypotheses state that the introduction of childcare policies or parental leave schemes can be explained by (1) the presence of women in national parliaments, (2) the presence of a strong women's movement, and (3) equality machinery (an agency or agencies—whether internal or independent-established by the government to stimulate gender equality). By comparing six cases of Western European welfare states introducing childcare arrangements or parental leave schemes between 1985 and 2000, they found that equality machinery was the only condition that was present in all cases of work-life policy change. Further research is needed to examine whether equality machinery is absent in cases where social policy change does not occur.

An example of the indirect method of difference can be found in Pien Bos's work. She examines the decision-making process of unmarried mothers in South India concerning relinquishing their child to adoptive parents. The general theoretical expectation is that unmarried motherhood does not exist in India because it is a cultural taboo. Unmarried women who get pregnant are expected to have culturally no other option than to deny the existence of the child after abandonment. Bos, however, succeeded in tracing nine unmarried mothers who raised their child themselves and compared their stories to ones from 29 mothers who decided

to relinquish their child. She was able to show that the relation between unmarried pregnancy and relinquishment of the child is not self-evident, and identified the ability of women of the lower cultural castes in the cultural context of South India to exercise agency.

Critical Summary

Because the selection of cases is an important element of a case study research design, it needs to be substantiated carefully in research proposals or research reports. Scholars have to report the criteria they used and the screening process they followed. The selection of cases should be based on the research question, whether descriptive, exploratory, or explanatory, and may be driven by empirical or theoretical considerations. Scholars agree on the preference for selecting multiple rather than single cases to answer exploratory or explanatory research questions.

Inge Bleijenbergh

See also Configurative-Ideographic Case Study; Descriptive Case Study; Explanatory Case Study; Exploratory Case Study; Extreme Cases; Method of Agreement; Method of Difference; Multiple-Case Designs; Process Tracing; Single-Case Designs

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CASE STUDY AND THEORETICAL SCIENCE

The status of case study research in the social sciences could be considered somewhat ambiguous. The social sciences are theoretical sciences, and theoretical science, by definition, seeks to generalize. Nevertheless, political and social events and phenomena occur only within unique, concrete cases, contexts, and events. This makes the relationship between the generalizing spirit of theoretical science and the uniqueness of case studies problematic.

Case studies, though unique by definition, are implicitly theoretical. They are theoretical since they are done, not out of interest in the uniqueness of selected cases, but because these particular cases are assumed to be typical. Researchers employing case study methodology assume that what is learned from particular cases will be typical, hence generalizable. It is for this reason that case studies, though dealing with unique situations, carry theoretical pretensions. To be sure, case studies are sometimes undertaken explicitly for the uniqueness of the case, and only for descriptive purposes. However, these case studies form a basis for subsequent further exploration and theorizing. Case studies are also undertaken to understand the "outlier" case—that very unique event, organization, group, etcetera, in order to understand what is missing from our more generalized theorizing. These studies also have as their end the intent of developing or modifying theory.

Case study researchers cannot simply take for granted that a given case is typical. The typical character of a case must somehow be established. At the most basic level, informal argument is presented to establish the typical character of a single case. This is done routinely in everyday discourse, throughout the social sciences, and even in the advanced natural sciences. However, in research that aspires to scientific status, something more than informal argument is often required.

Case Study and Experimental Science

The experimental sciences often serve as an exemplar for case study research, particularly for positivistically oriented researchers. In the experimental

sciences, hypotheses are tested in controlled experiments. Certain aspects of an experimental situation, the initial conditions or independent variables, are specified together with a hypothesis stating the expected outcome. Since the experimenter strives to recreate identical initial conditions for each repetition of an experiment, initial conditions may appear to be generalizations by definition. It is easy to overlook the fact that each experiment is actually a unique case. No two repetitions can be precisely identical. Although experimenters strive to make sure that each repetition is sufficiently identical, they can never be sure of what constitutes sufficient identity. Experimenters are often befuddled by unexpected outcomes due to something unnoticed in the initial conditions of a repeated experiment, or to problems in conceptualization of the experiment.

In the experimental sciences, flaws in initial conditions can be discovered and independent variables revised, while variables in case study research can only rarely be artificially manipulated. Although the focus of interest of a case study can be redefined, as can the variables thought to be relevant, the situation studied, in all its richness and complexity, is beyond the researcher's control. The researcher may be able to choose variables but, unlike the experimental researcher, cannot manipulate them. Moreover, in experimental situations, variables can usually be isolated; that is, stripped of much complexity. In case study research, while the researcher may decide not to count features of a given situation as relevant, they can only rarely be removed from the situation. Even then, the removal of a feature will impact other features in the situation, some of which the researcher may not even be aware. The impossibility of artificially excluding everything but a predetermined set of independent variables makes intellectual work with given situations unavoidable in case study research.

Such problems are not unique to case study research or to the social sciences more generally. Much natural science research must also take the features of the situations studied as givens. Among these are evolutionary biology, paleontology, geology, phylogeny, astronomy, physical anthropology, physical geography, meteorology, and seismology. Much research in such sciences is historical in character. Much of it consists of reconstructions of unique situations that are sufficiently rich in detail

to explain particular events. Such science works with what information is available to create as plausible an explanation as possible. Later it might be completely overturned by new information and hypotheses. Another genre of historically oriented research is genetic in character. It seeks to explain, with sufficient richness of detail, how particular states of affairs came to be.

Explanation by Typical Initial Conditions

The theoretical social sciences, notes Karl Popper, usually ask questions about kinds or types of events or phenomena, and they almost always make use of a method that consists of constructing types of situations or conditions, that is to say, the method of constructing informal or verbal models. Much of what is called theory in the social sciences, as well as in many areas in the natural sciences, consists of explanation by typical initial conditions. Such generalized typical initial conditions are sometimes called typological theories.

Such models, usually not formalized, are used to explain specific instances of the phenomenon under investigation. When the model fails to explain, it has been shown to be problematic. This does not mean that the model will be discarded. It means only that some explanation must be sought for its failure to explain the particular instance at hand. It is the problem resulting from a model's failure to explain that drives inquiry farther. Various hypotheses may be proposed to explain the problem. The model may be incomplete. The investigator might not be aware that something is wrong with the premises. A model may fail to explain because, for example, it is not rich enough in detail, because it incorporates a faulty assumption, or because of its conceptualization. The researcher can then focus on why the model fails to explain in any given case. Falsification, that is, rendering a model problematic, in this case, plays the role of driver in the growth of knowledge.

Organization theory, role theory, small-group theory, and game theory are but a few examples of bodies of typical social situations used as explanations in social science. When small-group theory is used to explain a particular instance of behavior of a congressional committee, it will be hypothesized that the variance will be explained by typical initial conditions provided by small-group theory. If this

fails to explain the variance, the theory will be rendered problematic. Its failure to account for the variance will require explanation. Explanation will typically be provided by an enrichment or repair of initial conditions. Such an explanation will identify some features of the congressional committee or of its decision situation that makes the deviant outcome comprehensible.

Much general, systematic knowledge in the natural sciences similarly consists of generalizations of types of situations. For example, in meteorology there is systematic knowledge of the characteristic of types of weather systems. In seismology there is systematic knowledge concerning typical conditions under which earthquakes occur. Scientists in such areas of research face problems that are not unlike those confronted by researchers making use of case study methodologies.

The focus of interest in case study research, as in scientific inquiry more generally, does not necessarily or even usually aim at the highest possible level of generalization or abstraction. Scientific problems almost always arise within limited contexts and are often solved or explained by generalizations that apply only within such limited contexts. Most case studies aim at generalizations that are valid only within limited contexts. It's possible to reconstruct the setting of a particular small group, such as a single congressional committee or the Politburo of the Communist Party of the former Soviet Union, or of the method of operation of one particular criminal. Such contextually limited models may be used to explain specific instances of the group's or individual's behavior. This is, in fact, just what scholars who study congressional committees and the Soviet Politburo often actually do. They seek to reconstruct the enduring, the typical features of the institutional setting.

This is not unlike many areas in the advanced natural sciences that focus exclusively on generalizations that hold only within narrowly delimited contexts. There are, for example, many generalizations that are true of dogs but not of other mammals. And there are many generalizations about mammals that do not hold for other vertebrates. Scientists in the advanced natural sciences rarely seek the highest degree of universality of generalization. They usually look for contextually limited generalizations, and are entirely satisfied when they find satisfactory ones.

Critical Summary

Case study research can thus be viewed as continuous with both experimental science and history, and as theoretical in character. In experimental science, typical initial conditions are held constant, yet initial conditions may range from the very general and abstract to the very rich and specific. A historical study may be done out of an interest in that particular unique event, with the full richness of the event reconstructed. The same study may be hypothesized to be typical, hence generalizable, and be treated as a case study, with attention focused on the typical features of the situation. Interest in a case may be at any level of abstraction, from the unique to the most general.

The word *theory* is used in different ways in ordinary language, as well as in science, and is, to some extent, a contested concept. Some social scientists and philosophers of science would deny the status of scientific theory to the kinds of generalizations of typical situations discussed in the present context. However, if it is accepted that the task of empirical science is to propose generalizations that simplify reality and are testable, case study research can easily be seen as an integral part of the research activity of theoretical science.

Fred Eidlin

See also Contextualization; Generalizability; Paradigmatic Cases; Situational Analysis; Substantive Theory; Theory, Role of; Theory-Building With Cases; Theory-Testing With Cases

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CASE STUDY AS A METHODOLOGICAL APPROACH

A case study is a commonly used method among business economists studying firms and organizational behavior. It can be seen as a special research strategy and approach that can use either qualitative or quantitative data, or even combinations of them. The studied cases are usually simple ones, and they are studied in their own special environment. The model can be considered as ideographic. Examples of ideograms include wayfinding (i.e., directional) signs or Arabic numerals, which are used worldwide regardless of how they are pronounced in different languages. The case data can be either longitudinal or cross-sectional. It is important that the setting for research is connected to previous theories, which form a foundation for the analyses and interpretations in the conclusions. A researcher and a research object interact constantly with each other in a case study, and maintaining mutual trust is, therefore, a part of the research process. In the results, the objective is to understand and interpret thoroughly the individual cases in their own special context, and to find information concerning the dynamics and the processes. A case study may also produce hypotheses and research ideas for further studies.

Conceptual Overview and Discussion

Case study is used in gathering scientific data in different disciplines, in clinical psychology for scientific and therapeutic purposes, as educational tools for understanding pedagogic processes, and as strategies for making sense of sociological and political outcomes, among others. In its early stages the object of case study in the qualitative tradition involved a focus on one company or the stages of an individual. For instance, psychoanalysis set out to understand the inner dynamics of individuals, and assumed that people's mental structures were similar from case to case; in life-cycle analyses of a single company, its inner dynamics of development

were seen as similar to other organizations. The gathered pieces of information constitute qualitative data, which are then interpreted. Qualitative data can be gathered not only as texts but also as pictures or through participatory observation, and a range of other methods. Interviews, for example, especially thematic interviews, are the most common data gathering method for a case study. Using several different methods also enables triangulation, that is, the information received from different data can be compared, which, according to some researchers, like David Silverman, increases validity. Kathleen Eisenhardt argues that it is also possible to use quantitative data alongside qualitative data in case studies. Here research strategies can include experimental research, quantitative survey study, qualitative field study, and participatory observation. Case study is a special research strategy that can bring various quantitative and qualitative methods together.

Case study is often used in the field of business economics as well as in other disciplines. Among them are administration sciences and technical sciences, where the research objects frequently include independent organizational entities, such as companies and other administrative organizations. The studied cases are unique by nature. For example, a company as a business unit forms a natural economic and judicial entity for a case study to examine, and it is relevant to study the organizational, business, and administrative characteristics within the framework of the unit. Public administration organizations are also relevant targets for case study. Organizational behavior, including individual and group behavior in an organization, as well as understanding and explaining it in some work communities, is so complex a task that sometimes only case study can offer an adequate foundation—see, for example, the work of Chris Clegg, Nigel Kemp, and Karen Legge. Case study has been described—in now-classic works by Barney Glaser and Anselm Strauss, by Robert Yin, and others—as an independent methodical and methodological scientific approach.

Applications of Case Study

There are several different research methods for analyzing qualitative data, including linguistic interpretations of texts, which include discourse analysis, deconstruction, as well as semiotic and narrative analyses. In this latter approach, the object unit of study, that is, a text itself, is a more dominant factor than a particular study's focus on different empirical units, within or across organizations. Overall, the use of qualitative research methodology has become more common in European—especially Nordic and Finnish research practices in different disciplines. As Timo Toivonen points out, for example, in sociology the use of quantitative research methods has decreased in favor of a growing qualitative tradition following Thomas Kuhn's work on science and its progress through paradigmatic revolutions. The tradition of case study is different from survey study and its generalization viewpoint, since a survey study uses statistical, often multivariate, methods as a support. Case study has collapsed the generalization viewpoint of the quantitative research tradition, and has contributed to the creation of new methods in the social sciences. Some of these methods are originally from the humanistic research tradition, such as the study of literature. However, cases and their analyses also form an independent methodological and methodical approach and a data-gathering model for empirical social study.

As Sirkka Hirsjärvi and colleagues contend, the variable features of qualitative research are suitable for case study where the research data is gathered in natural, real-life situations. Researchers' own observations and discussions as instruments are used more often than measuring, which is viewed as an "indirect" method for assessing rich data. Analysis is inductive by nature, in other words, a researcher's objective is to reveal unexpected issues. Testing the theory or the hypotheses is less important than examining the data in a complex and precise manner. The research set for the study is selected expediently, rather than through the method of random sampling, and the studied cases are treated as unique. In addition, a case study is conducted in a flexible manner, and plans are changed if conditions require it. This way, the research plan is formulated during the research process.

In addition to firms and organizations, it is also possible to study individuals with the case study method. In clinical psychology, case study methods have always been used. The theoretical conclusions of psychotherapy are based on individual

cases in which developmental paths are described in an individual manner. Although it might be difficult to compare the cases with each other, it is possible to find a common theme such as, for example, recovery processes. The traditions of psychoanalysis and psychotherapy have considered case study as a core of scientific discourse. In the psychoanalytical literature, Donald Spence and Roy Schafer, as well as Antero Kiianmaa, have maintained the research tradition of action research and the use of narratives as data. On the other hand, behaviorist psychology does not significantly base its theoretical development on cases, but may occasionally develop a case as a prestudy for formulating the question of the actual study; and case studies are used in testing preliminary hypotheses. In this behaviorist research approach the use of cases is secondary to the scientific analysis and is not what usually is meant by a case study in the original sense.

The case study approach in business studies differs from the psychological case study in that it does not necessarily aim at the "recovery process" in a psychotherapeutic manner. Management consulting as such may have as its goal this kind of therapeutic outcome but this is not usually viewed as scientific research. The act of consulting does not, however, question the objectives of recovery, and its viewpoint on the whole process is practical. Theory formation is not used as a starting point or an objective of the study. Nevertheless, it is rather common that the case data gathered during the consultation are used in the research of business studies and in other applied sciences, such as engineering.

Cases are also an important means of education. A rich and descriptive case of a firm or a person promotes learning by giving a practical framework for generalizations and theoretical explications. Students can compare their personal experiences on the topic with this framework, and in this way learning becomes an experiential process. Sometimes it is possible to use scholarly case data as teaching material, but both the objectives and the contents vary from case to case. The theoretical frame, the research questions, as well as conclusions drawn from the case are important for case research, whereas pedagogical dynamics, heuristic nature, and the variety of data promoting learning are important in the educational use of cases.

This entry examines a case study from the methodological point of view, and as a special scholarly approach. Case study does not form only one method or set of methods, but is an approach or a research strategy that researchers often use in individual ways to apply to the research setting in question. It is used—as in the work of Jean Hartley and the later work of Kathleen Eisenhardt-in reaching an understanding of the inner dynamics of a unit. Case studies are especially suitable for attempts to understand the variable social phenomena in real-life environments, as Robert Yin argues, in the situation of business management. Also, when existing theories concerning the studied phenomenon are inadequate, a case study can help theory formation by constructing the pyramid "from bottom to top."

A Concise Presentation of the Characteristics of a Case Study

There are benefits to gathering data on individual cases. A researcher may gather data by participating in the life of the studied community for weeks, or even years, and in this way receive important and fundamental knowledge that helps answer the research questions. The unique nature of the research object is part of the setting for research, and therefore the objective is not to find universal rules but to understand the case or cases deeply in their own unique environment. Hartley's work in 1999 examined two different labor strikes, the ways in which they were organized, as well as the strike committees—and found significant local differences between them. It would have been difficult to point out the differences without intensive use of case study, since the means of decision making as well as the decision makers over the period of the strike proved to be important factors on the course of the strike. It would have been impossible to predict these factors beforehand. These individual findings also supported prior theories on strike behavior. Consequently, the nature of the studied unit, its own way of acting and thinking, are important research findings in a case study.

Case study is not a separate method or tool isolated from the research context. On the contrary, as an approach it breaks down the tool-like conception of the use of methods. In empirical social scientific research, the basic unit of research consists of a researcher and a research object. The researcher gathers data from the research object by using different types of observation and data gathering methods. The research methods used can include interviews, familiarizing oneself with the written material in the research setting, participatory observation, and survey, all of which will produce data. The "information" collected through empirical data gathering is ready to be analyzed or interpreted while preparing the conclusions of the study. It is rather common in case studies that the researcher uses several different data gathering methods, and that the amount of research data received this way may also vary. Therefore, case study can be considered as an approach that the researcher uses when dealing with the research object and gathering data about it. The interpretation of the data is different from the analysis of the typical survey data, where generalization and statistical analyses form the foundation.

The challenges in case study are the same as in every data gathering method. Formulating the research question primarily determines the methodology or the method that is the best for the empirical part of the study. A method is not an end in itself but a means for gathering data. The cornerstones of case study methods are the researcher's role in the research process, the context in which the research is carried out, connecting the setting for research with existing theory, the use of various methods that aim at increasing reliability throughout the process, and finally, the researcher's committed and skilful analysis. The approach is both holistic (beginning from an entity) and inductive (moving from the general to the specific), rather than a deductive one, that is, moving from the specific toward the general. The case study model can also be considered idiographic; that is, it tries to explain and understand the individual cases in their own unique contexts.

Case data can be either longitudinal or crosssectional. Longitudinal data are used in examining change, the life-circle, or the history of a unit. The data may consist of one or several cases. If there are several studied cases, then the research setting can be a comparison of these units on selected dimensions. On the other hand, if a researcher is studying only one single case, the object of the study can consist of history, changes on some measurable dimensions, or the researcher can, for example, explain a phenomenon, such as economic returns, with its internal features (see Table 1). The research questions and the setting for the research determine the number and the nature of the cases. The rich research data from a case study give opportunities to quote the interviewees and to bring forward the viewpoint of an actor in the empirical study. A thorough case study is not, however, merely a description of data; it is a logical approach that relies on interpretation and analysis. Finding its roots in the theoretical frame is, therefore, a special challenge for a case study: A clear conceptual frame forms a foundation for interpreting the results of a case study.

If the data consist of several cases, a winding approach that moves from one case to another may be best. In this approach the researcher gathers data from one case, interprets it and asks new questions based on the interpretation, and then moves on to another case in order to find answers to these questions or to deepen his or her interpretations. It is possible to move on to a third case, to a fourth case, and so forth, until the most crucial and the essential questions of the study have been answered. A process-like progression is different from the way in which a set of studied units is formed in the beginning of the research, and in which data are gathered despite the results of the different cases. The methods show the idiographic nature of a case study in an excellent manner, as well as the fact that the researcher and the research object interact in a different way than, for example, in a survey. The researcher is a learner, and the learning process is the foundation on which the data gathering and interpretation are built.

Conducting a Study, and the Critical Points in a Case Methodology

A researcher who uses a case study method benefits from the rich store of qualitative *methods* available. Further, the analysis of a case study also has particular characteristics that make it unique. A researcher and a research object interact intensively with one another in a case study, and a study proceeds as a process, from one stage to the next. The cornerstones include the following: (a) Selecting the case study objects, (b) ensuring entrance to the case site, (c) outlining the theoretical frame as a foundation of the study, and (d) data gathering, processing, and analyzing. These are not only the

Table I Application possibilities of a case study

	One Case	Several Cases
Cross-sectional data	An internal tension in a setting for research; comparing dimensions as a research object	Comparing the cases on the selected dimensions
Longitudinal data	Studying change in the selected dimensions	Comparing changes between the cases on the selected dimensions

practical questions but also the factors affecting the validity and reliability of the study, and they are significant when evaluating whether the researcher has actually studied the phenomenon he or she intended to study, and whether the conclusions have been drawn in a reliable manner. The research object is a phenomenon, such as cultural change in a company. An object phenomenon itself can be approached through various research settings and theoretical emphases. During the research process the phenomenon can be framed, for example, so that the unit that will be analyzed consists only of the ideals of the management style, guiding principles on how to do the work, and the evaluation of work considered important by the firm's personnel—as in the 1991 study by Iiris Aaltio-Marjosola. The research data are interpreted in a way that simplifies the change of the organizational culture through these ideals.

In principle, the research problem and the research questions determine the methodology and the methods with which the phenomenon is approached. They determine the typical company or organization for that particular study, or a special case and the phenomenon to be examined to the fullest. Also, the number of cases studied depends on the research questions. Studied cases are often found through the researcher's own network. For example, he or she may have worked as a trainer or a consultant and may draw on organizations that he or she knows well. It is important to have the whole organization's support, in addition to the support of the management and perhaps of the owners, and here prior knowledge and association with the organization can be of great help.

From the beginning it is important to agree on the responsibilities between the researcher and the management of the organization, especially on how

personnel are informed about the research. It is characteristic of a case study that the researcher and the organization studied are in close contact with each other, usually for several weeks and sometimes even for years. It may be useful to name a contact person inside the organization who will help with the interview schedule and in finding required documents. Building a good relationship with the organization, as well as maintaining it, is important for the researcher using a case study method. Changes in personnel or management may occasionally change the schedule. For example, the management or the ownership of the company may change during the research process, and in such situations it may be important to prove the commitment of the previous management or the owners to the study, through contracts, minutes, or other evidence.

Building and maintaining trust between the researcher and the study's target company is at least as important, if not even more important, than formal arrangements. Occasionally one hears about cases in which changes in ownership prevented the researcher from releasing some of the most important findings of the research. Nevertheless, the characteristics of a case study, that is, its process-like nature, long duration, and close contact with the studied company, make a project rather different from the typical survey study, in which the data are gathered in an agreed manner and the analysis is done outside the company. The researcher gathers, interprets, and analyzes case study data during the course of the case study, and depending on the findings, prepares the next stage in a way that gives additional information about the studied phenomenon.

In a case study, it is at least as important to choose a theoretical frame with specific literature, as it is in any research using a qualitative approach.

A conceptual frame gives the material a focus, with the help of which rich and varied data can be controlled by the researcher. Some form of limitation in terms of such things as time frame is necessary in every research setting; otherwise the data gathered in a case study may turn out to be too extensive and unwieldy. The study's focus and question formation need to be reasonably well developed when the researcher first contacts the target company, as does the linkage to prior concepts and research results. However, even though a focus is useful, it is also useful to retain the researcher's open-mindedness for learning, which is characteristic of case study. Occasionally, a case study has surprising results, a prior paradigm is seen in a different light, or the study reveals a paradox with respect to prior knowledge. Understanding the internal dynamics of the research object, to which the case study methodology gives opportunities, gives space for various results.

Hartley's work provides illustrative examples of gathering data based on a case study. A researcher is often uncertain of how to begin, who to interview, which documents to read, and which meetings to follow. At first the researcher may create a general picture of the organization and its structure, and conduct a few interviews to gain some level of orientation. These will help to clarify and specify the sources required for the research. For example, the work rhythms, organizational pressures, and their occurrence that are characteristic of a particular company may be seen in these preliminary chartings. These pieces of information will prove to be helpful when outlining the interview schedule. Also, the most important people and research methods for conducting the research become clearer. Triangulation may also increase the reliability of the study.

Gathering the research data requires systematic behavior, and the researcher should ask whether enough informants have been interviewed for the study, or if other respondents with a different perspective are needed, and why. Should there be more data for a specific assumption or a conclusion? Sometimes people who have resigned from the company may give significant information that is needed in order to understand a specific crisis and to gather alternative viewpoints of the situation. Ad hoc data can sometimes come up in situations such as an accidental meeting in a coffee-room

or in a hallway, and create new ideas for continuing the study or for throwing new light on the researcher's current interpretations. Therefore, it is good for a researcher to leave room for flexibility and surprise: Intuition has an important place in case study research.

How extensive should the research data be? There are expenses in the process of data gathering, both temporal and economic. Gathering the data, as well as recording them, takes time. Transcribing recorded interviews, that is, transforming them from audio to a written form of research data that then can be processed in several different ways, should be done as soon as possible after interviewing. Glaser and Strauss recommend keeping a research journal and writing down observational, methodological, and theoretical issues during data gathering. The saturation point is reached when an additional interview does not bring any significant new data, or the researcher feels that the same issues are repeated in the informants' speech.

Data Processing and Conclusions

The way research data are processed depends on the nature of the data. There are computer programs for interpreting qualitative data that search for regularities in the text and act as an instrument for interpretation. A case study usually consists of several different types data, sometimes both qualitative and quantitative. The analysis of the research data, as well as the data gathering, is done in an iterative manner. While the data are being gathered, they are also being evaluated, and therefore a partially theoretical construction is done during the gathering stage. Yin's work describes data processing as a process in which the data are first sorted around themes or questions, after which the data's suitability for the categories is examined more thoroughly. It may be helpful to use statistics, tables, and figures to summarize the data. The categories may change after the analysis, if it is realized that the results require different interpretation. An individual case, for example, may not fit into any of the categories, and this requires reinterpreting all the data and probably reformulating the categories.

The data gathered through case study enable rich and varied descriptions. Stories and interview quotations from the data are very common; especially in the first stage of analysis they help in simplifying the extensive data for further processing. In the later stages of processing, the data are further summarized, and the researcher draws conclusions, for which the data are searched. The contextuality of case data is an essential foundation for interpretation. The data are interpreted with the object of understanding the individual case through the elements found in its own environment, whether it is an economic, a cultural, or a social environment.

A theoretical frame and a strong conceptual foundation are especially important elements of an analysis. Case study data and their analyses are used by researchers to develop theories on prior phenomena by pointing out paradoxes, bringing forward new observations gained from the thorough analysis, and pointing out the varied relations between the individual cases and their environments. Answers to the research questions are not sought in generalization but through intensive and contextual case observations.

Case study methodology is sometimes criticized because of supposed generalization problems. A survey produces data that are analyzed through statistical methods with the objective of producing data that can be generalized. A causal research setting is common. In this research setting, the dependence between the variables is determined from a data sample by using the methods of multiple variables. However, a survey is also based on the researcher's evaluation and interpretation. When using a factor analysis the naming of the factors is a subjective event, in which both the researcher's own consideration and his or her prior knowledge and concepts about the studied phenomenon will influence the outcome. The interpretations do not come "purely" from the data.

The case analysis does not aim at generalization but rather, through the researcher's attempts, to understand and interpret the individual cases thoroughly in their own special contexts. The researcher examines data about dynamics, mechanisms, processes and internal "regularities," and does so in a way that comes closer to the ordinary conception of generalization. The objective is to reach conceptions and understanding by moving from the specific toward the general.

The whole concept about the requirement for generalization can be criticized. If a state or an issue is described on a very general level, the content of the description may prove to be extremely superficial. The phenomenon dissolves in its generality. Instead, understanding a state, process, or dynamics on an individual level and in its own environment may produce understanding, which helps to illustrate a scientifically interesting phenomenon in a more extensive manner. When concentrating deeply on the problems of the research object, the case method may also produce hypotheses and research ideas for further studies, whether they are qualitative or quantitative by nature.

Application

Example 1: Comparisons Between Hospitals and Cooperative Work Societies

Case study has been commonly used in business economics research when studying firms and other organizations, which are administratively, economically, and judicially independent entities. Case study applies well to the study of organizational behavior, also, because the target phenomena consist of various types of behaviors, which are examined in their own environments. A context, that is, the environment, is a crucial basis for interpretations in a case study. The following example examines two different dissertations in which a case study has an essential role.

Jari Vuori compares the ward cultures of public and private hospitals in a study conducted in 1995. The objective of the study is to define the concepts of private and public organization and to study the mythology behind the conceptions of private and public healthcare, as well as to compare healthcare in private and public hospitals in order to find their idiographic differences. Case study can be considered as a method, since the target of the comparison consists of the meanings that the personnel of two different organizations attach to the phenomena of administration, life, death, and work. Selected organizations were chosen as examples of private and public hospitals so that they are relatively similar to one another as far as the size and type are concerned. In this respect, case study forms a basis for the research.

Vuori's study is qualitative in nature, and its primary data gathering method is in-depth interviews. The data on life and work were gathered in interviews as well as completed with questionnaires and collected stories from the participants. Nurses and doctors also drew organization maps in which they described the social hierarchy of the organization from their personal points of view. In addition, meeting memoranda and personnel magazines were analyzed. The question of the differences and similarities might be between the ward cultures of private and public hospitals was selected as the research problem. Further, the objective was to discover how valid the myths of private and public organizations and healthcare were. An existential-philosophical approach was used as a methodological background philosophy for the method, since the study focused on the contents and inner life of the research subjects, and the way they gave meaning to their experiences. The study concentrated on the meanings that the research subjects gave to the studied dimensions.

The results show that the cultural differences between the hospitals were smaller than the prevailing myths indicated. Generalizations that public healthcare would be less oriented to the individual, of lower quality, and economically less profitable, proved to be untrue in the meanings that the staff had for their work. Similarly, the results pointed out that workers who had experience in both private and public hospitals showed varied conceptions, whereas those who had worked only in public hospitals tended to think "of course private healthcare is better." This is surprising and paradoxical. As is typical of case study, this result emerged during and out of the research; it was not part of the research questions. The study does not aim at generalizing the results to the whole hospital sector, which would be an insurmountable task, even for qualitative research. It does show the dynamics of research questions in a way that is typical of case study and enables a process-like research in which the questions become more and more accurate as they are answered during the research process. A conceptual frame of reference forms a strong foundation for the research. The work includes a thorough examination of the selected methodology, study of meanings, and the examination of the research on the culture in the areas that are important when forming the research question. The backgrounds of the studied cases are also presented in a way typical of a case study, that is, a conceptual analytical examination is done on the questions of what public and private healthcare are, and how clearly they can be distinguished from one another. The studied cases represent both the public and private sectors in hospital administration. They are used in an attempt to understand the differences between these organizational forms on a more general level, beyond individual cases.

Example 2: Employee-Owned Firms and Work Cooperatives

Another interesting case study is Eliisa Troberg's focus on the "relevance of transaction cost and agency theoretical concepts to the management of knowledge intensive co-operatives." This study examined employee-owned firms and work cooperatives, especially the way in which they have been organized, and their organizational culture, management, leadership, motivation, and employee-owners' commitment to the firm. The target of the study consists of four different case companies. Existing research shows that work cooperatives are formed in order to minimize transaction costs. The study is a comparative case study. First, two work cooperatives are compared with a similar single-owner business. Second, work cooperatives are compared with a limited company that is owned by its employees. All of these business forms are cooperative enterprises, but the administrative structure varies from case

The primary result of the study revealed that each work cooperative had a strong organizational culture and set of values. Shared values and the notion of the work cooperative as a flexible organizational form act as the basis of commitment and motivation for the workers. The work cooperatives had been established to allow members to combine their skills and networks, and to reduce the transaction costs of marketing. Worker turnover was low because of the high level of motivation and commitment. Passive members were identified as those causing problems. In one cooperative, decision making proved to be slow and the members had problems reaching a consensus. Thus it was felt that a socially integrating management model might reduce these problems, giving good results as was the case with another one of the studied work cooperatives.

The researcher substantiates her methodological decisions and the use of case study by stating that there have been only a few studies on work cooperatives and that constructing a theory by examining case companies in an intensive manner

is justified. In addition, the target phenomena of the study—culture, socially integrated management, and commitment, as well as their relation with the administration—are best studied with an intensive case examination. Case study methodology also is emphasized in selecting the cases. The selected firms were similar enough to be compared. Therefore, the size and the field of the companies are important factors, and the researcher decided to concentrate on the fields of education and consulting. The number and age of personnel as well as the geographical location of the companies support the comparative nature of the cases. Both of the work cooperatives had been in business for several years and had between 10 and 20 members. The studied firms, one of which was owned by the personnel and another owned by an individual person, were also well matched.

Example 3: Comparison Between Managerial Careers in Information and Communication Technology and the Paper Business Sectors

Pia Heilmann's 2004 study compares careers in the information and communication technology (ICT) and the pulp and paper industries. The main themes of the research are managers' careers in Finland, and business sectors that determine careers. The purpose is to examine managers' careers, and to describe and compare career paths between the two most important business sectors in Finland: the ICT industry and the pulp and paper products industry.

The main research question of the study is: How do managers in ICT and the paper business sectors construct their careers? Heilmann was interested in examining whether there were any commonalities in how managers' careers unfold in these different working environments. What are the main factors in manager's lives that direct their careers? Do they differ depending on the business sector? These questions are approached with the help of metaphors: career anchors and career ladders.

This research represents a qualitative multiplecase study, as outlined in Yin's 2003 work. Two business sector cases are compared in the selected dimensions. The primary research data were gathered in 2002 through interviews with 30 managers in Finnish ICT and pulp and paper companies. The interviews were held in three companies from the ICT sector and three companies from the newsprint industry. The first interviews in each company were conducted with directors in order to gather basic information concerning the organization and to discover the organizational viewpoint to career development. Then, five suitable managers in each company were picked with the help of company directors. The determining factor in selecting interviewees was the varied career development of the engineering managers. Data from the focused interviews were analyzed according to theme and type. In every interview, a short questionnaire on career anchors was also given. Results of the questionnaire were analyzed with the Mann-Whitney Test. These secondary data complemented the interview data.

Results showed that reflections of a boundaryless career are apparent in the ICT sector (see the work of Mirvis & Hall). Careers are developed without limits and formal hierarchical progression. Persons working in the ICT sector are eager to develop their competences and care about their employability. The career of an ICT manager progresses by means of increased competence, as the manager is offered new and challenging positions. However, the traditional, hierarchical career model cannot be rejected for the ICT sector, because increased competence often pushes careers upward in the hierarchy. The conception of career is more relational than hierarchical because the new position is related to the former position and to the person's training and work experience. In the ICT sector, career paths and particular positions are seldom ready-made. Open positions are usually for Software Engineers at the starting level in an organization. After entering the organization, a person's career development is based on interaction between the organization and the employee. The course of positions is based on the manager's competence. A post does not necessarily exist in the organization chart where the manager can direct his or her next step. Career development is done by formatting new duties in interaction with the manager and the organization, by giving him or her new opportunities and challenges, power, pay, and title.

Hobbies are an important factor among ICT managers when they make decisions concerning the area in which they want to pursue education

and to work. In the ICT sector, work and education overlap, whereas in the paper sector full-time work begins immediately prior to or just after graduation. In this research, the ICT companies work mainly on customer software projects where software applications are designed, tested, and documented. It is a world with deadlines and contracts to complete. The work done in ICT companies has to be integrated with customer schedules and regular business hours. There may be several unfinished projects continually under way where the same person may work as a member of various projects in various capacities. The organizations mainly use a matrix organizational structure offering flexibility and effective allocation of resources. The pressure for change is continuous: Changes in technology and tools assume constant training and retraining. Working hours are 37.5 each week, and work is done in the daytime. There may be a need for temporary extra hours during tight periods, but if overtime work is continuous it is a sign that something is wrong in the project design and resource planning. Diversity is seen for the future of the sector. According to one ICT director, reorganizing is going on in the ICT business: Some companies will die, some will consolidate, and some will change their business philosophy.

An individual's first position is usually found through networks or from company homepages. ICT sector careers begin with either part-time or fixed-time contracts in the position of Software Engineer. Most people taking the software developer position are undergraduates in technical universities working part time during their studies.

The paper sector, as a part of the forest cluster, represents mainly a traditional, hierarchical career development format. The organization has a formal organization chart that shows all of the managerial positions. Managers planning their future career development can easily discover possible positions in the organization. Vacancies are usually announced in internal or external job markets. Development of one's own competence is also common and desirable in the paper industry. Managers begin their careers as a specialist in some area of the industry and then usually move upward toward general management tasks.

In the paper sector it has been common to recruit the children of personnel as summer

trainees. This makes it possible for individuals to become acquainted with the paper business for the first time. It is on the basis of this experience that many managers become interested in the paper sector and aim for technological degrees. Studies and work alternate but do not overlap. During school terms, students studying in the field of pulp and paper production concentrate on their studies; they work only during summer holidays. Generally, students in this field finish their studies before they start fulltime work. Careers in the paper sector generally begin with thesis work or with the first permanent position. The first permanent post is generally found through an advertisement in a newspaper, usually the main national newspaper. The first position is usually as a specialist working in a particular, strictly defined area. Paper managers construct their career in one paper company. Job openings are often announced formally on the company's intranet. Paper managers expect their tasks to change every 5 years. Traditional career thinking is strongly in evidence in the paper sector, but there can also be seen signs of new career thinking. Managers in the paper industry, for example, assess and develop their own competences and follow what happens in the labor market outside their own company.

The researchers noted in the examples above applied case study methodology in their own ways to the cases discussed. One study has two target companies, the other has four; one examines two different business sectors. The comparative setting becomes easier when the cases are similar by size and industry. Also, the theoretical frame is well constructed in each study, which gives a solid basis for the conclusions drawn. The researchers also used interview quotations, case descriptions, and detailed individual observations, which is typical of a case study.

Research Ethics

After the research data have been gathered, the researcher leaves the organization after agreeing with the contact person(s) on how and when the research report will be delivered to the case organization. The personnel may need a different kind of report than the management. Feedback

discussions and even seminars concerning the research results are also possible. It may be emotionally challenging for a researcher to leave an organization after spending a long time gathering data and to move on to the more abstract research stage, which doesn't have the social rewards often received from interviews and participatory observation. Responsibility for the organization's future is in the hands of the management and the interviewed persons—the researcher's responsibility is to carry on processing and outlining the data, and to move on to the conclusions, which should be beneficial to the personnel of the case organization.

The researcher may reveal acts that are extremely important for the organization and for the interviewed people. Occasionally, researchers may find themselves in an awkward situation when the organization expects them to give consulting advice on a difficult situation, for example, who should be fired or promoted during a reorganization. The researcher is committed to use the data for research purposes and for the best interest of the whole company, and therefore it is ethically justified to refuse to answer these types of questions. The researcher is often asked to deliver a summary of the research results to management, and sometimes this extends to the employees—at least to the people who were interviewed and wish to receive it. However, the researcher's role differs from that of a consultant, which is also evident in that the researcher is not paid for the report.

Writing the report itself often leads to many ethical questions. The data presented in the study should be anonymous; any personal information that reveals the source of the data should be deleted. If the sources of information have nothing against it, however, identity information is allowed. Names are usually not necessary, just background details such as gender or position in the organization. Sometimes researchers need to be critical, because they found dynamics in the organization that are harmful; in that case, good research ethics require that these data are shown in the study, not concealed. If the researcher has signed a confidentiality agreement, this should be noted in the study. The researcher is on the side of the whole organization, thus the research should not serve the interests of a limited group

of people. Human and individual consideration is needed.

It is both polite and ethical to care about people's feelings during the research process. Good interviewing techniques are needed when using the case study method. The interviewees should be given enough time to think over their opinions, they should not be encouraged to be too open in the process or be pushed in a way they might regret later. When the researcher is able to use multiple documents and materials as research data, the possible limitations for their use should also be considered. It is safe to let someone in the organization read the manuscript in order to avoid possible difficulties later.

Research ethics questions are at least as important in case study methodology as in any other research approach. These deal with questions of establishing the study, writing the study report, and, later, using one's own knowledge concerning the case. In a case study, the researcher becomes more like an insider in the organization compared to more objectivistic research approaches, and the more the researcher is accepted as an insider, the more ethical consideration is needed.

Critical Summary

Case study methodology can be a rich source for understanding the multiple structures that support and sustain organizational life and business units. Its strengths are in its ability to gain an insider's viewpoint during the research process, the more in-depth and nuanced findings based on that, and in its flexibility in using different methods. Its challenges are in the theoretical framework and in the development of concepts based on empirical findings. When these are taken into account, fruitful and nuanced research results are possible, and through the study it is possible to gain an overall and holistic picture of the research object.

In addition to the study conduction itself, during the research process the researcher can gain a lot of understanding and skill that would not be possible using a more distant methodology. Ethically, case study research can bridge academic research and work–life.

Iiris Aaltio and Pia Heilmann

CASE STUDY AS A TEACHING TOOL

Case studies are commonly used as research tools, and the case study method is a distinguished instrument for bridging the gap between theory and practice in classes. Students learn to apply their theoretical knowledge through the case study process of diagnosing, deciding, and acting. An adequate preparation of the cases and the course outline is essential for educational success, with consideration of the cases' exemplarity, clearness, and practical orientation. The case outline should include the presentation of the case and its individual background, the task of researching and analyzing information, the process of decision making and argumentation, a following (group) discussion of the results, and the final comparison with practice. For further development of teaching cases, more successful criteria-oriented research is required, as well as a sustained education and training of teachers and lecturers.

Conceptual Overview

A Chinese proverb says: "Tell me and I will forget; show me and I may remember; involve me and I will understand." Based on this idea and the practical experiences of Gustav von Schmoller, James Spender established the Bureau of Business Research at the Harvard Business School, which can be classified as the origin of so-called teaching cases. In this context, in 1908, the following statement (according to Kaiser, 1983) could be found in their university calendar: "In the course of Commercial Law, the case system will be used. In the other courses an analogous method, emphasizing classroom discussion in connection with lectures and frequent reports on assigned topics—what may be called the 'problem method'-will be introduced as far as practicable" (p. 12). Since then, teaching cases have been an inherent part of the business and management curriculum all over the world.

These cases are characterized by the intention to present complex circumstances and problems that are close to reality (e.g., from business practice) in such a practical way that learners are motivated to discuss the particular contents.

This way of teaching enables learners to apply practical problems and circumstances; they are required to establish a direct relation between these real-world issues and theoretical information. The case consists of a content part followed by a question part. There might be just one question or several, depending on the case and the subject. The complexity of the cases differs depending on the level (undergraduate vs. master's level) and the subject.

An example would be that students read a case about a specific start-up company and then have to rate the start-up's success using the background of their knowledge about start-up success factors. Another case may be a detailed market analysis of the soap market in one country with the task of creating a new brand for a producer of consumer goods.

Application

Case Study Design

The goal of teaching cases is that the learner has to analyze problems and situations, gather and evaluate information, interpret facts, develop alternative solutions, and come to final solutions, alone or in a group. Depending on the case and the teaching outline, the case study may have a given solution or the goal may be an open-ended discussion.

To reach the intended effect for the learners, these teaching cases must fulfill certain conditions and prerequisites. For this, Bernd Weitz proposes three essential criteria: exemplarity, clearness, and practical orientation.

Exemplarity means that the study must exemplify not just an arbitrary and subjective case, but also one that is objective, unique, or representative. Clearness requires that cases are not trivial; on the contrary, they have to make use of all possible and appropriate alternatives of illustration for a comprehensive understanding. This demands holism, traceability, visualization, and supplementation with additional information. The last point, practical orientation, aims for the highest integration of theory and practice for an integrated learning process.

There are certainly more criteria that can be taken into consideration; for example, how up to date a case study example is. However, the relevance of any particular criterion depends on the individual case and the general teaching goals.

Teaching Case Process

To work with case studies in classes, the following general procedure can be proposed:

- Presentation of the case and its background
- ♦ Gathering and analyzing information
- ♦ Decision making and argumentation
- ♦ (Group) discussion of the results
- ♦ Comparison with practice

First, the teacher has to decide whether the students should solve the case on their own, in pairs, or within a group. In most instances, group work is recommended because this is the most common situation in practice. Moreover, personal skills and effective group behavior can be further developed as well.

Within the first phase, learners are confronted with the description of the case and its content. They read about the case situation, ramifications, and persons involved and have to capture the underlying problem. It is important that all participants clearly understand the contents and the problems, as this is the prerequisite for the success of the next phase. Ideally, the students have enough time to search for the required information on their own. Otherwise, the teacher can offer additional information for the case solution in advance. Based on the collected information, the groups start to analyze the contents with regard to the case study questions.

The process of decision making means that there should be more than one possible case solution, providing enough space for creative solutions by the participants. After a specific case solution is selected, an appropriate discussion of pros and cons and ideas for further consequences is required. In concluding, the learners have to make an active decision for a certain option and support their choice. The bigger the group, the more complex this process step can become.

For traceability, all these phases should be recorded in writing, though the procedure may vary depending on the specific case.

The discussion of the results is moderated by the teacher. All groups or persons present their case solution, including the reasons they arrived at this result. The other participants are invited to question the presenting team's solution critically and to evaluate their results. With this discussion, further development of the case can be reached, as well as an active integration of all learners.

Given a particular case outcome, the presentations of the group can be compared and accordingly discussed. For example, if the real-world outcomes of the case are known, the participants can learn that some decisions from practice are not always the best or obvious solution, but rather the result of specific decision processes within these companies. Finally, group feedback is recommended.

Critical Summary

Although there is a long history of using case studies in teaching, there is little research on how successful this practice is. Some often-mentioned limitations are:

- ◆ In most areas, only a small variety of real teaching cases exists.
- ◆ Companies are unwilling to give insights into their processes to the public, as they fear a loss of control over know-how or advantaging their competitors.
- Creating and working with teaching cases requires high involvement of the case author and the teacher in class.
- ◆ Learners do not accept cases, as they may fear having less time for other necessary coursework (e.g., exams).
- Lack of experience, both for teachers and learners, may prevent them from using teaching cases.

Nevertheless, teaching cases offer a highly effective method for including students in the learning process and making a transfer between theory and practice. More research is needed regarding the success factors of teaching outlines, moderators, and group sizes. Moreover, schools need to offer explicit courses for teachers to learn how to deal with cases in classes. Then, teaching cases will be an increasingly integrated part of future education.

Alexander Brem

See also Case Study as a Methodological Approach; Case Study Database; Case Study Research in Education; Chicago School; Experience; Pedagogy and Case Study; Reality; Storytelling; Verstehen

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CASE STUDY DATABASE

A case study database is a primary method for organizing and warehousing case study data and analyses—including notes, narratives, tabular material, and documents—in a single space. This entry describes the elements of a high-quality case study database as well as the four compartments embedded in most case study databases.

Conceptual Overview and Discussion

Prescribed by case study methodologist Robert K. Yin, a case study database is an increasingly useful analytical tool that strengthens the reliability of case study research. Although most books on field methods have not recognized case study databases as an important methodological technique, the failure to craft a formal database may be deemed a major shortcoming of case study research. Instead of creating a case study database to establish a clear audit trail, many researchers engaged in case study research do show their data separately from the final case study report, it is blended into the

narrative of the report. To offer only case study data that is blended with the narrative in the final case study report leaves a critical reader with no opportunity to examine the raw data that led to the case study's conclusions.

Although there is no uniform approach to establishing a case study database, the quality of a database is evaluated by the extent to which other researchers are able to understand how the collected data support claims made in the final case study report through perusal of the database. A formal case study database not only enables researchers who are not involved in the case study project to juxtapose data collected and cited in the database with claims made and conclusions drawn, but such a database also increases the reliability of the overall case study. Thus, to prepare a case study database that is reliable and usable for secondary analysis, a high level of clarity and specificity within the organization of the database is required to ensure accuracy of the data and data analysis.

Compartments Embedded in Case Study Databases

There are four compartments embedded in a case study database: notes, documents, tabular materials, and narratives. Each compartment is described in the subsections below.

Notes

Case study notes, the most common compartment of a case study database, are messages derived from interviews, observations, and/or document analysis completed throughout the case study research process. While notes may be generated in a variety of ways (e.g., handwritten, typed, or audiotape format), the most convenient way to organize and categorize notes is to ensure that they are easily understandable and accessible for later examination by research and nonresearch team members.

While there is no precise, systematic way in which case study notes must be organized, a common technique is to divide notes into the major subjects as outlined in the case study protocol. Aligning notes with sections of a protocol helps the researcher to maintain the level of organization necessary to construct a clear and usable case study database. While organization and clarity are important to achieve for secondary analysis,

researchers need not spend excessive amounts of time rewriting case study notes derived from data collected. Rather, case study notes should simply allow readers not involved in the research process to understand how the data support claims and conclusions.

Documents

Similar to case study notes and other compartments embedded in the case study database, the primary objective of case study documents is to make these materials readily retrievable and understandable for subsequent inspection.

As case study documents are collected throughout the research process, one useful way to organize documents is to develop an annotated bibliography. Such annotations would facilitate storage and retrieval so the database can later be inspected and/or shared with other researchers involved and not involved in the original study. To establish further convenience and wider usability of the case study data, converting documents into portable document format (PDF) copies will make for efficient electronic storage. Notwithstanding the efficiency of PDF files, researchers are not required to trouble themselves with the time and storage space associated with the construction of electronic documents.

Tabular Materials

Some case study researchers interested in organizing and storing data for subsequent retrieval use tabular materials either collected from the site being studied or created by the research team, which may represent a third compartment in a case study database. These materials might include survey or other quantitative data and counts of phenomena derived from archival or observational evidence. Similar to other means of storing data in the case study database, it may be most convenient and useful to organize and store tabular materials in an electronic case study database, as opposed to separate documents and data filed in separate places.

Narratives

A final compartment embedded in most case study databases is the construction of narratives—an analytical procedure that involves documenting

the answers to the questions in the case study protocol. During the process of writing narratives, the researcher needs to cite or footnote relevant evidence—whether from interviews, documents, observations, or archival evidence—when generating an answer. While developing narratives in response to case study protocol questions facilitates the production of a clear and concise preliminary analytical process, the narratives may or may not need to be included in the final case study report.

In short, case study narratives offer researchers a method to converge data with tentative interpretations. The researcher or research team may then use the narratives embedded in the case study database to compose the case study report, and readers may be able to understand the sources of evidence that directly support the claims and conclusions offered in the final report.

Critical Summary

Establishing a case study database is a helpful technique given the complex and multifaceted nature of case study research. While inordinate amounts of time should not be devoted to making a case study database professionally presentable, the data embedded in each compartment should be understandable to researchers involved and not involved in the case study. The primary characteristic of a quality case study database is that citation of data clearly connects to claims made in the database as well as in the final report. The construction of a case study database also establishes a warehouse for subsequent cross-case analysis. While the inclusion of a case study database in case study research is not widely noted in the literature on field methods, these databases represent a technique that increases the reliability of case study research that merits more attention.

Ryan J. Davis

See also Case Study Protocol; Complexity; Interviews; Narratives; Reliability

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CASE STUDY IN CREATIVITY RESEARCH

Creativity refers to the capacity to invent or craft novel and useful products that are valued as such by a peer group. The term applies to many domains of human experience, such as the fine arts of painting, sculpture, music, literature, film, and theater, and the applied arts of architecture, advertising, and mechanical and engineering design. Creativity also characterizes many other aspects of life such as scholarship, leadership, and teaching. Progress of society, which is characterized by the new and useful, can benefit from creative citizens though creativity may not always lead to positive ends. Hence understanding creativity should be of great interest to social scientists, persons in government, and educators, in addition to those who are interested in creativity from the standpoint of basic research. While creativity is generally understood to characterize highly original minds, sometimes referred to as big C creativity, the concept can also apply to everyday problem solving. The latter may lead to new and useful behaviors for an individual but would not receive external recognition from a professional standpoint. Given the significance of creativity to society and individuals, it is natural that creativity research is becoming a burgeoning field, as represented by several scholarly journals such as Psychology of Aesthetics, Creativity, and the Arts; Creativity Research Journal; and Journal of Creative Behavior.

The Significance of Case Study to Creativity Research

Because creativity is by definition typically associated with the unique characteristics or ability of an *individual* and because case study also emphasizes the concept of *individual*, case study lends itself particularly well to addressing the questions of creativity research, particularly questions that require a wealth of data about a single person or created artifact. Foremost among these questions is, "What is creativity"? This question breaks down into several others: To what extent is creativity an innate characteristic that cannot be trained? Or conversely, to what extent can or must

creativity be trained? What are the stages of development that characterize creative behavior? Are there stages of creativity that apply equally to all domains in which creativity is manifested? Are there universal attributes of creativity that characterize all individuals within a culture or across cultures? How can creativity be fostered? What is the role of the gatekeepers who admit or reject a new work as worthy or not of the term *creative*?

Types of Case Study Research in Creativity

As the concept of *individual* is central to both creativity research and case study, research in creativity has benefited and can benefit from case study approaches. The cases examined can be creative persons, their products, or processes. The data may be acquired through interview, archival materials (e.g., diaries), analysis of creative works or performances, and observation of the process of developing the work. The case study approach is characterized by the acquisition and interpretation of a wealth of data about the individual case rather than the administration of personality or problemsolving tests to large numbers of individuals. The case study, however, can entail both qualitative and quantitative data.

Like other methodologies, case study approaches to creativity have strong and weak aspects. For example, interviews with creative geniuses have the benefit of providing information from a valid source; however, the information may entail subjective bias on the part of either the participant or the researcher. Case study approaches that analyze the developing work itself can serve to reflect the underlying mental operations associated with creativity. The focus here can be sketches and revisions of the same work. Here too, however, investigators may be biased to find what they are looking for. Simply because one is analyzing something inanimate versus something animate does not protect against subjectivity. Analyses of autobiographies or biographies of a creative individual can also provide a useful source of data, but again the source of the information may be subject to bias. Finally, case studies have been carried out in which individuals are challenged to solve a specific problem, where the specific problem is the case. The limitation here is that only one problem or a limited number are explored.

Howard Gruber developed the evolving systems approach (ESA) to address the need for direct study of the creative process of eminent individuals in an appreciation of the complexities of an individual's entire life. The approach arose from Gruber's earlier extensive study of the writings of Charles Darwin as well as interviews with Jean Piaget. ESA focuses on the case of the exceptionally creative individual in order to understand the nature of the creative process. It has six features:

- 1. It is directed to both the creator and the creation of the work, rather than to personality and other psychometric tests.
- 2. The investigator must have sophistication in the domain of the creation and creator being studied.
- 3. Sufficient original material (as in available sketches, diaries, letters, interviews) must be available to permit the exploration.
- 4. Within an overall holistic approach, focus is placed on meaningful part processes such as imagery, metaphor, and problem-solving that make up the whole.
- 5. It aims to create the dimensions of significance for describing the creative process and characteristics rather than checking off traits from a list.
- 6. It conceives of the case as evolving and nonhomeostatic, allowing for the influence of external factors over time, such as changes in societal views.

Application

ESA has been applied to the lives and works of Charles Darwin, Albert Einstein, and Michael Faraday, for example, and has helped to demystify their creative processes while preserving the uniqueness of the experience and contribution of each individual. As pointed out by Doris Wallace, a collaborator of Howard Gruber, this type of analysis emphasizes the genius of each creator within multiple contexts of work as a whole and in the context of the body of work, the professional milieu, family and personal life, and the sociohistorical period.

A somewhat less comprehensive, more quantitative case study approach taken by psychologist Robert Weisberg has focused on obtaining quantifiable data, such as the time between initial practice

in a domain and the success of the first creative work. As a specific example, the first concerto of Mozart's that can be regarded as his own composition, and not based on the work of other composers or his father, came about nearly 10 years after his commencement of instruction. An analysis of Mozart's scores, including original music manuscripts with the annotations and handwriting of either Mozart or his father, supports the observation. Similar information regarding the timing of Picasso's highly regarded artwork, or even the Beatles' period of initial popularity in the 1960s, arises through the same case study approach. Such an approach that collects data systematically before, during, and after a creative act of interest can reveal that apparent sudden popularity has actually a gradual onset involving hundreds of hours that comprise years of dedicated practice. Thus the case study data gathered for creativity research may either support a view that the creative process and disposition to originality is inborn or support the alternative view that the creative process depends on 10 years of dedicated practice. The case study approach will also emphasize the importance of exposure to ideas available to the creator that may account in large part for a discovery or breakthrough that received recognition.

Weisberg's case study of Thomas Edison, for example, emphasizing the importance of timing and chance events, could take into account his early experience with scientific experimentation and the profession of telegraphy that ultimately provided him with the background required to invent the phonograph. Given the similarity in principle between the phonograph and the motion picture recorder, experience with the phonograph privileged Edison's position as the inventor of the motion picture camera, as compared to the position of Alexander Graham Bell, an inventor who lacked a critical piece of information. As much as Bell might have imagined such as thing as a motion picture camera, he lacked some critical experience that was required to solve the problem of how to do it. Here the case study, as carried out by Weisberg, focuses on the time course of activities and emphasizes the reliance on extensive training and the availability of useful information that together lead to highly regarded creative outcomes.

Having an even greater emphasis on quantification of data is the historiometric analysis developed by Keith Simonton applied to all the works of an individual author, playwright, poet, or composer. As an example, Simonton developed a popularity measure for the 37 plays of William Shakespeare based on such factors as the frequency of stage performances, the number of complete audio recordings, and the number of scholarly critiques. He aligned these scores and their rankings with the estimated composition date. From these data he was able to show which external (e.g., historical or biographical occurrences) and internal (themes of the work) factors led to the eminence of the dramatic work. A similar approach to determining popularity was taken in analyzing the 154 Shakespearean sonnets. Further analysis of the style and word choice within these popular examples helped to reveal the essence of Shakespeare's creative genius, for example, in designing the rhyming couplet to tie together the loose ends of the preceding lines without adding surprising or unusual words. The case, then, begins with Shakespeare but ends with analysis of particular outstanding examples of his work.

Another case study approach to creativity research has focused on detailed analysis of successive recordings of the preparation for a professional performance. Primary investigator Roger Chaffin audio-recorded all practice sessions of professional pianist Gabriela Imreh, who was learning the Italian Concerto of Johann Sebastian Bach with the aim of making a professional recording of the piece. In a longitudinal case study of more than 50 practice sessions during a period of approximately 40 weeks, the attention of the artist shifted from one type of performance cue to another, as indicated to Chaffin through introspective report. The later sessions contained increasingly polished performances and revealed variations that would be regarded as creativity. The variations were adaptive to the particular contingencies arising at each rehearsal, and suggested that the creativity of the performer is activated with every serious practice or performance session.

Creativity in performance arts such as music, ballet, or theater can focus on either the creativity of the performer or the creativity of the composer, the choreographer, or the author of the script. There are several case study methods for exploring this talent. Examination of sketches may entail looking for subtle differences between inks, for

example, so as to determine what ideas were notated first, and how the ideas changed. In the musical realm, many composers, including Beethoven, have left sketches behind. Although these are sometimes almost illegible, music scholars have assessed these works for clues about the composer's creative process. One such project on Beethoven sketches has been carried out by William Kinderman of the University of Illinois, while a more contemporary resource of 20th-century musical sketches has been published by Patricia Hall and Friedemann Sallis. Such material complements other historiographic or biographical data and provides a picture of the creative act and person.

In searching for universal dimensions of creativity, a case study approach was taken by David Cropley and Arthur Cropley in which teams from a class of engineering students were presented with a creative problem-solving task—that of designing a system using only a mousetrap to move a wheeled vehicle a fixed distance. The authors graded the outcomes in accordance with a set of indicators (relevance and effectiveness, generation of novelty, elegance, and genesis) and kinds of products (routine, original, elegant, and generic) that had a variety of possible effects on the beholder (e.g., redefinition enables the beholder to see new uses for a familiar object). The most original out-of-the-box solution met all the criteria of creativity, but the authors suggest the importance of case studies from many other fields such as foreign languages, history, mathematics, and physics so as to validate the universality of the dimensions. It should be noted that concepts of creativity can be applied to both the extraordinary genius and the ordinary person, the distinction referred to by Mihaly Csikszentmihalyi as big C creativity versus *little c* creativity. Thus case studies of creativity can be carried out with children and with ordinary adults, although the focus might be regarded as being on problem solving, or in the example of children, as precreativity rather than creativity as it is most often understood.

Critical Summary

Because both creativity research and the case study emphasize the individual, the case study method lends itself well as a tool for collection and analysis of the rich data required for creativity research.

The cases in such studies can refer to the creative individual, the created product, the process of creation, and the problem to be solved. They are not mutually exclusive and, ideally, the study will include all of these. Within this area of research, there are numerous ways of exploiting the case study methodology, each having strengths such as obtaining a vast amount of data, and weaknesses such as the difficulty of retaining objectivity and staying focused on the key issue of interest. The combination of results from the various methods that touch upon the person, product, and process thus will lead more quickly to new facts and conceptualizations than will taking only one of the perspectives. The accumulation of data through case studies and the appropriate analysis will help to determine the nature of creativity and the ways of fostering it. The data can be acquired from both the creative genius as well as the ordinary person, and the knowledge acquired from the research may ultimately have application to all individuals.

Annabel J. Cohen

See also Archival Records as Evidence; Audiovisual Recording; Autobiography; Case Study Research in Psychology; Extreme Cases; Longitudinal Research; Narratives

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CASE STUDY PROTOCOL

A case study protocol is a formal document capturing the entire set of procedures involved in the collection of data for a case study. A complete protocol will include the following: (a) The procedures for contacting key informants and making field work arrangements; (b) explicit language and reminders for implementing and enforcing the rules for protecting human subjects; (c) a detailed line of questions, or a mental agenda to be addressed throughout the data collection, including suggestions about the relevant sources of data; and (d) a preliminary outline for the final case study report.

Conceptual Overview and Discussion

The desired protocol should cover the range of behaviors to be followed by case study investigators throughout their field work and their interactions with those being studied. In this sense, a protocol is broader than a data collection instrument, which may be limited to the line of questions (as in a survey instrument) or to measures (as in an experiment).

When and How to Use a Case Study Protocol

Case study investigators need to develop their protocols in at least two stages: a preliminary stage and a final stage. The preliminary stage occurs *after* the case(s) to be studied have been screened

and selected and after any pilot case study has been conducted. Those earlier steps may themselves have been the subject of formal documentation and procedures, but the steps should have been completed before drafting the preliminary case study protocol.

The preliminary protocol, though still reflecting tentative plans and ideas, should nevertheless be contained in a formal document. Case study investigators will need this document as a central part of their submission to their institutional review board (IRB). The IRB will review the protocol in approving the entire case study research project. Because the IRB will ascertain whether the planned case study will satisfactorily follow all of the necessary procedures for protecting the human subjects, IRB approval is mandatory before any research can proceed (not discussed here are the related documents that investigators will have to submit to their IRB).

The IRB's review may result in changes to the case study protocol. The version meeting with their final approval then represents the final stage of the protocol. This final protocol now contains the procedures to be followed in conducting the actual case study.

The preliminary protocol may have been developed alone, especially if the case study is to be conducted by a single investigator. However, if the planned case study is to involve more than a single investigator, and especially if others are to serve as part of the case study's field teams, the preliminary protocol should have been jointly produced by all these people. Although the lead investigator may still draft the bulk of the protocol, the others need to understand the protocol thoroughly. Such understanding best takes place if all team members have had an opportunity to contribute to its development.

Such familiarity with the preliminary protocol will be carried into the formal training process that then takes place with the final protocol. When two or more people are to be involved in doing the case study, the preferred case study training assumes the form of a working seminar, with participants discussing the contents of the protocol, their implications in relation to the case study's line of inquiry, and the relevant evidence bearing on the line of inquiry. The training process therefore becomes the opportunity for all of a case study's investigators and field team members to develop the same

collective understanding of the inquiry to be undertaken. Naturally, if the case study has only a single investigator, the training will assume the form of a self-study.

Whether seminar or self-study, the case study protocol should ensure that case study investigators have a deep understanding of the substance of the case study. This goal differs from that when using other methods, such as surveys and experiments, when some of the team is likely to include research assistants who may need only limited knowledge of the content of the research. In this sense, satisfactory mastery over the case study protocol requires all of the investigators to become "senior" investigators. Such a level of expertise is needed to cope with the discretionary choices that may arise during the process of collecting the case study data.

Application

A typical case study protocol might have five sections. Section one would briefly overview the case study, its main research questions, the case(s) to be studied, and the broad data collection strategies. The overview also could clarify whether the case study is to be part of a larger, multiple methods study, and if so, the main goals of the broader study.

Section two of the protocol should describe how the case study team will contact key informants, make field work arrangements, and specify other procedures to be followed throughout the data collection process. The importance of making all of these steps explicit is that every case study is likely to have unique procedural needs. The ensuing research will be more reliable if the procedures can be anticipated and then documented in the protocol. The descriptions may include specifically scripted words or instructions for team members to use.

Section three of the protocol should discuss the specific concerns to be raised and monitored in protecting human subjects. The section again may include specifically scripted words or instructions for the team to use in obtaining informed consent or otherwise informing case study interviewees and other participants of the risks and conditions associated with the research. The discussion of the concerns and the presentation of the scripted words need to follow any guidelines issued by the IRB.

Section four of the protocol is its most substantive section. The section may be divided into subsections,

each representing a major part of the case study inquiry. In turn, each subsection should consist of a series of questions to be investigated by the case study team. These questions are to be part of the team members' mental agenda.

The questions in section four are not the questions to be posed to case study key informants or other interviewees as if they were the respondents in a survey. In this sense, these questions do not represent scripted words. On the contrary, the protocol's questions are directed at the case study team, posing a query for which the team is to gather evidence. Each question may be accompanied by a brief list of hypothesized sources of evidence for answering the question, including clues about identifying the relevant sources. For instance, the list may direct team members to specific participants to be interviewed, specific documents to be accessed, or specific field observations to be made.

Overall, team members need to learn the material in section four as thoroughly as possible. Adding to this chore can be another feature of section four which is anticipating the data collection choices that might emerge during field work, and conjecturing how such choices might be addressed and settled. Whether the protocol formally contains this information or not, the case study training should include a careful discussion of the choices.

Section five of the protocol should then present a tentative outline of the final case study report. Although the substantive contents will not be known at this juncture, an outline indicating the relative emphasis to be given to the various topics in section four will provide important guidance for data collection. For instance, if the case study report is to contain a detailed chronology of the important events in a case, team members will need to collect more data about this topic even if it had been represented by only a single question in section four. Conversely, section four might have had several items covering the formal organization of the case being studied (as in studying an organization), but the main reporting need might only be a carefully constructed organization chart.

Critical Summary

When engaged in case study research, the development and use of a case study protocol is imperative. A well-designed protocol will define questions of study, remind researchers about field procedures, and identify data to be collected. Most important, the protocol should explain the relationship between the questions of study and the data to be collected. If needed, important adjustments to the case study protocol can be made throughout the field work. Key to understanding a case study protocol is that it is not a field instrument. The protocol's language is directed at the researchers involved in the case study, not potential interviewees or field informants. Thus, the protocol is not to be carried around in a physical sense but as a plan held in the researcher's head.

Robert K. Yin

See also Anonymity and Confidentiality; Field Notes; Field Work; Mental Framework; Reporting Case Study Research

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CASE STUDY RESEARCH IN ANTHROPOLOGY

Case study research in social/cultural and linguistic anthropology consists of intensive periods of ethnographic field work, which are then written up and analyzed. Such case studies, termed *ethnographies*, are central to anthropology as a discipline. This entry considers the definition, origins, and history of the case study in anthropology; the impact of this particular type of case study on the discipline; some controversies surrounding it; and its wider application.

Definition and Formulation

It is difficult, in anthropology, to find an exact definition of *ethnography*, and there is much disagreement about what exactly an ethnography constitutes. Broadly speaking, it can be defined as "the art and science of describing a group or culture," which involves the ethnographer writing about the routine, daily lives of people. Alternatively,

it could be defined as studying behavior in every-day contexts, engaging in "unstructured" (although not unsystematic) data collection, using a small number of cases, and analyzing these through interpreting the meaning of human actions. Ethnography can also be said to be characterized by "naturalism"; that is, understanding naturally occurring human behavior in context as opposed to through artificial settings or structured interviews. While this sort of research technique is also found in other disciplines, such as sociology, it is not as central to other disciplines as it is in anthropology.

The lack of structure, and the focus on particular cultures, may explain the difficulty of defining ethnography. The nature of the study is guided by its specific research problem, techniques, duration, budget, and theoretical underpinning. Furthermore, ethnography is unique in that the researcher and his or her identity become basic parts of the research process itself, and yet, a balance must be achieved between maintaining enough involvement to get the sense of life in the culture under study, and maintaining an objective distance for the purpose of analysis. The ethnographer's personal experiences effectively become central to the research process, but are restrained by the impersonal standards of observation and, to the extent that it is possible, objectivity. Many, however, would argue that the lack of agreement on the nature of ethnography is one of its greatest strengths, giving it a degree of flexibility and richness.

The anthropological case study is also expected to develop a balance between the emic (insider's) and etic (outsider's) perspectives on the culture under study. Again, however, there is much variation in the degree to which each is favored. While some ethnographers focus upon obtaining an objective approach, of chronicling events and behaviors, others argue that the key to ethnography is in conveying the insider's perspective on his or her own culture to outsiders. In writing terms, ethnography is generally characterized by thick description and vivid, narrative-style content, with the aim being to capture the complexity of human life.

While the image of ethnographic research that frequently emerges in anthropological literature is of a rugged, scientific anthropologist immersed in the culture under study, the reality is often less romantic. It has been noted, principally by Renato Rosaldo, that the result of British anthropologist

E. E. Evans-Pritchard's efforts to edit, as it were, the outside world out of his case study of the Nuer, in the name of objectivity and of defining the "true nature" of Nuer culture, resulted in a kind of contextless image that ignores the historical specificities of the time. The belligerence that Evans-Pritchard identifies as typical of the Nuer was, he argues, most likely a specific condition inspired by British encroachments upon their territory at the time of Evans-Pritchard's field work. Most anthropologists also rely substantially on translators and informants with an unusual social background, frequently those used to dealing with outsiders, even social scientists. Some researchers also challenge the notion that anthropologists can truly become immersed in the culture they study—or, indeed, whether this is desirable (e.g., for anthropologists studying criminal subcultures). While immersion in the field is desirable, the degree to which this immersion is possible, or conveyed in research, varies.

There is also some disagreement over what the overall purpose of this type of case study should be. Ethnography developed under a functionalist paradigm, where it was seen as a way of ascertaining the fundamental nature of social organization, norms, values, and so forth. More recently, many anthropologists consider that their main role should be cultural interpretation, or the ability to explain the practices, beliefs, and frameworks of reality of a given culture from its point of view. Some researchers argue that, in the absence of set criteria, ethnographies should be assessed in terms of their naturalism, their validity (i.e., how "true" the account is), and their relevance to social issues and scientific research more generally.

Historical Development

Genesis of Ethnography: 1600-1921

While it may be argued that anthropological case studies date back to the 17th and 18th centuries in the form of reports by missionaries and traders on native peoples, at the time that anthropology was established as a discipline in the 19th century, anthropologists were not generally supposed to go into the field themselves, but to analyze the data gathered about other cultures by colonial officials, missionaries, professional ethnographers, and so forth. Toward the end of the

19th century, however, more intensive field work began to be done by anthropologists themselves. Franz Boas, for instance, did a full year's field work among the Inuit in 1883–1884, and spent about 40 years, off and on, working with the Kwakiutl. Boas was unusual in this, however, and considered ahead of his time. Another exception is the 1898–1899 Haddon expedition to the Torres Straits, which differs from the modern norm in being a team effort comprising a number of researchers who had a relatively short period of time to do their research. Intensive field work was not practiced by many of the key figures in 19th-century anthropology.

Development: 1922-1969

Bronislaw Malinowski is often cited as the "founder" of the profession of social anthropology, for his establishment of the focus on intensive field work in an exotic community as a central defining facet of the discipline. Malinowski's own account of his experience is that he had planned on doing short-term field work in Australia, but, due to the outbreak of World War I, he wound up exiled to the Trobriand Islands for several years (due to having enemy alien status) and discovered that through intensively involving himself in the culture, he was able to develop more rich and comprehensive accounts of the Trobriand Islanders' practices than earlier anthropologists had achieved. The reality involved rather more planning than this, however, as Malinowski already had some theories about the benefits of long-term field work before this, and ethnographies based on sources other than intensive field work with a single community continued to be considered acceptable. Nonetheless, the practice of ethnography rapidly became popular, ultimately proving central to the discipline.

Modern and Postmodern Ethnography: 1970–Present

In the 1970s and 1980s, critiques were leveled at the concept, principally accusing anthropologists of colonialism and of exploiting peripheral groups. As James Clifford put it, in popular imagery the ethnographer changed from a sympathetic, authoritative observer to an ambitious social scientist making off with tribal lore and giving nothing in return. Anthropologists also began to question whether it is possible for ethnographers to remain neutral, detached observers, and to what degree research can be influenced, consciously or unconsciously, by the researcher's bias and mind-set (e.g., Derek Freeman's 1983 critique of Margaret Mead's classic studies of Samoa). This led to the development of the postmodern movement in ethnography, aimed at critiquing the format and nature of the case study, and taking into account the researcher's own identity, issues, and so forth, such that it is clear that all accounts contain bias and that the researcher's position may not be that of the people being described in the ethnography.

In the 1980s and 1990s, the postmodern movement in anthropology questioned the nature of ethnography, whether it is a form of scientific analysis or simply of literature/literary criticism, or even autobiography. A controversial case in the 1980s involved the novel *Shabono*, initially presented as a real memoir of a European's life with the Yanomamo tribe of South America, but later proved to be a fiction. Nevertheless, the piece was so well researched and factually accurate that it suggested that one could produce a convincing and accurate ethnography without living in the culture under study, thus challenging the claims of some anthropologists that ethnography possesses a particular kind of "authenticity." Many studies also argued for an awareness of the limiting factors of anthropological data-gathering techniques. Also controversial was the fact that many researchers were doing work with transnational groups, in which a traditional field study is not possible, and researchers must adapt their methods, for instance doing a multi-sited study or adopting the transnational lifestyle of the informants as much as possible. This, however, incurred critiques from others questioning what the anthropological endeavor should involve, whether there was anything new in the postmodernists' arguments, and whether anthropology would not be better served by an increase in reflexivity (i.e., researchers maintaining a continual awareness, when doing research, of their own interests and biases, and of the context in which they are operating) and academic rigor instead.

Examples

It is worth considering some of the major types of anthropological case study:

- The *traditional descriptive ethnography*, consisting of a description or exploration of a whole culture or subculture, usually considering as many aspects of the culture's or subculture's organization as possible. This approach is comprehensive, but is usually found in early to mid-20th-century anthropology. A prime example is Edward E. Evans-Pritchard's *The Nuer*.
- The focused descriptive ethnography, which is similar to the first but focuses on a single aspect of it (kinship, adolescence, visual arts, etc.), such as Evans-Pritchard's Witchcraft, Oracles and Magic Among the Azande.
- The *event study* or *incident study*, in which the focus is on a single event or incident; the analysis usually focuses on what that single incident can reveal about the wider society. Many linguistic anthropological studies are of this kind. Examples include Audrey Richards's *Chisungu*, a study of a girls' initiation ritual.
- The *microethnography*, sometimes taking the form of a life history, focusing on presenting a single informant (or one or two informants) and understanding their society through them; this was popular among postmodernist anthropologists. Examples include Marjorie Shostack's *Nisa: The Life and Words of a !Kung Woman.*
- The *meta-ethnography*, in which the ethnographic experience itself is taken as a case study, with the anthropologist and his or her experiences as research subject. One example is Elenore Smith Bowen's *Return to Laughter*.

While it is difficult to determine precisely what defines the case study method in anthropology, then, one can identify particular genres and techniques within it, allowing one to generalize to some extent about the method and its influence.

Methodological Implications

Although there is general agreement on the elements of ethnographic field work, the interpretation of these elements is more varied. While participant observation is usually seen as the main basis of ethnographic work, it can be, and usually is, augmented by the use of audiovisual equipment, interviews, collection of cases, genealogies, quantitative surveys, and so forth,

and, more recently, by online work. Despite this, participant observation is still regarded as crucial, relating as it does to the anthropologist's ability to observe, experience, and analyze these experiences according to a particular critical framework.

Again, however, the nature of this participant observation can vary. While many popular and academic guides to doing field work emphasize that the researcher should be a stranger to the group, ethnography can be conducted by people who are already members or partial members of a group; for instance, former schoolteachers doing studies of classroom activity. Ethnographers also may not live directly among the people under study. Margaret Mead, for instance, lived with an American naval family near the village that was the subject of her research, and Michael Agar argues that his field work among drug addicts in New York is as much an ethnography as his earlier "traditional" field work among farmers in India, even though it would have been highly dangerous for him to actually live with the drug addicts or share their lifestyle; consequently his participant observation was limited to visiting with his interviewees as an explicit outsider to the community.

It is generally agreed, however, that maintaining a sense of reflexivity and context is essential, situating the observer in the field and considering his or her social identity. It is also important that ethnographic studies carry with them a sense of context, intellectual and otherwise. Martin Harris, for instance, notes that pioneering anthropologist Meyer Fortes's conclusion that the Tallensi were an acephalous society (i.e., a society without leaders) in fact stems from his failure to consider that these people had been defeated and dispersed by the British, and that under normal circumstances they had a more recognizable leadership structure. Ethnographers thus must situate themselves and their informants in context to as great a degree as is possible while still maintaining confidentiality.

Critiques

A number of critiques of ethnography have been raised from within the discipline over the years. To begin with, the technique has been accused of leading to a false sense of scientific generalizability, as in the well-known case of the Human Relations Area Files, founded in 1937. These aimed to classify and

organize cultures around the world based on kinship systems, economic organization, and so forth, in a large database from which general conclusions could then be drawn. The problem was that this frequently led to drawing false and meaningless parallels and ridiculous generalizations, as human culture is not so easily classified. Some have argued, on the other hand, that the lack of scientific generalizability is a strength of the discipline. Furthermore, societies do not easily lend themselves to the kind of decontextualization that facilitates generalization. However, a lack of scientific rigor can observably lead to a degree of "siloing" among anthropologists, where most are experts in only a small area and find it difficult to generalize from this area or to engage in interdisciplinary work. A balance must therefore be struck between generalization and a focus on specificities.

Critiques have also been leveled at the value of ethnographic methodology as a scientific technique: that by studying small numbers, the case study's findings are not generalizable; that studying behavior in a natural setting rules out the researcher keeping control of the variables; and, finally, that the case study itself is nonreproducible. One might counter these points by arguing, first, that anthropology is not about generalization, but about making theoretical inferences (as discussed above); second, that ethnographic techniques can document lived experience in a way that experiments cannot; and, third, that reproducibility isn't always possible in natural science, either, nor does it guarantee validity. It is also imperative to consider ethical issues, such as the researchers' responsibility to their informants, the desirability of giving something back to the studied community, withholding sensitive information from publication, and so forth.

There is also the issue of researcher bias, given the identity-focused nature of ethnographic field work. Michelle Rosaldo argues that anthropology up until recently, and still, was characterized by unconscious biases toward and prejudices against women, making the results of most classic studies far from objective without anybody realizing it. A number of anthropologists, including Ruth Benedict and, famously, Margaret Mead, have been accused of having massaged the facts to fit the theory being tested, or to have had that theory influence their perceptions. Emic and etic perspectives can also

sometimes become confused and difficult to separate. Many guides to ethnographic field work discuss strategies for reducing, or at least increasing personal awareness of, bias among field-workers. This can also lead to the issue of multiple realities, or the *Rashomon effect*, whereby many people in, or observing, a society can develop different perspectives on it, leading one to question which is the "true" one, or, indeed, if we can speak in such terms at all. It is worth noting that, if we reflect upon our own culture, we would see that there are many perspectives on it as well, raising the question of why we expect other cultures to be different in this regard.

Finally, as noted above, anthropologists are often, still, accused of colonialism and/or of perpetuating colonialist attitudes through the nature of field work. The structure of anthropology still frequently involves privileged Westerners observing and describing those in non-Western countries and/or the underprivileged in Western nations, but seldom in reverse (a rare counter example can be found in John Ogbu's study of an American inner city by a Nigerian anthropologist). Then, further, there is also the question of who is the intended audience of ethnography? This critique has been tempered somewhat in recent years, as it is increasingly recognized that ethnographic research, even in traditional settings, is much more complex than this, and the anthropologist may not always be as powerful or as privileged in the field as some might think. However, academic research is still not divorced from geopolitics and accompanying power relations. Anthropology thus has to maintain a degree of awareness of the power relationships that form a subtext to ethnography.

Impact on Anthropology

Ethnographic research has had a defining impact on anthropology as a discipline, such that the use of ethnography is one of the points of identity of a modern anthropologist: The discipline is, effectively, built around a specific form of case study. Although quantitative methods are also used by anthropologists, even in studies of hunter–gatherer societies, they tend to be popularly regarded as a secondary activity, and Harris argues that ethnography is crucial to anthropology, noting that the rise in anthropology in the 19th century was spurred by

an increase in ethnographic material. More recently, Nigel Barley refers to anthropologists romanticizing the ethnographic experience, noting that when Malinowski's diaries were published, many were shocked at the revelation that even the father of ethnography had felt alienation, frustration, and even racism when engaged in his supposedly impartial and comprehensive studies of the Trobriand Islanders. Mary Louise Pratt refers to anthropologists defining ethnography in contradistinction to older, less specialized genres, such as travel books, personal memoirs, and journalism. Ethnography is thus the defining trait of anthropology, even though anthropologists may use other methods, and other researchers employ ethnography.

The emphasis on ethnography has also shaped the discipline in other ways. Anthropology tends to focus on qualitative over quantitative evidence, and on finding "authentic" voices or experiences, with concurrent debate over what, exactly, constitutes "authenticity." The defining trait of anthropology might also be said to be a favoring of cultural rather than biological explanations for human activity, which may also be another artifact of the case study focus of the discipline. It has, in some ways, also led to the prioritization of a single research method above all others. Malinowski notoriously strongly advocated the ethnographic method to the point where he was deeply critical of anyone who practiced less immersive research methods, even though "ethnographic fields" are themselves artifacts of history, shaped by colonialism, economics, and, latterly, globalization. Furthermore, it means that the personal attributes of the researcher take on a significance greater than they usually do in most other disciplines, perhaps leading to a greater sense of introspection on the part of anthropology as a whole.

This has also led to a fragmentation of the discipline. Anthropology, with its divisions into gender studies, African studies, Japanese studies, Native American studies, and so forth, lacks the degree of integration seen in other disciplines with similar subdisciplines (e.g., sociology, management studies), due in part to the focus on the case study as a unique, qualitative experience. This may be partially blamed on the difficulty of equating ethnographies on any sort of empirical level, given the great degree of variation from case to case. The focus on ethnographic case studies thus gives

anthropology a distinctively flexible, fragmented, qualitative character.

Impact on Other Disciplines

The anthropological case study method has been used to good effect in other disciplines. Sociologists, for instance, have been known to make use of it: in particular Erving Goffman, who self-identified as an urban ethnographer and spent much of his career engaged in deep-immersion participant observation in, among other things, hospitals, mental institutions, and (somewhat controversially) casinos, with the result that his work is both criticized for a lack of quantitative rigor, and celebrated for lateral thinking and innovative takes on human behavior. M. Rosaldo also acknowledges the contribution that ethnographies can make to gender studies through encouraging researchers to reinterpret earlier conventional accounts in light of gender bias and encourage the development of female-focused perspectives.

The anthropological case study method can also yield valuable alternative perspectives on other disciplines. Ethnographic work such as Ronald Littlewood and Maurice Lipsedge's Aliens and Alienists, a study of the cultural biases of psychotherapy have also encouraged revisions, not only in the medical profession, but in other empirical disciplines as researchers consider the impact of social behavior and beliefs on supposedly analytical, detached studies. In business studies, the work of anthropologists such as Diana Sharpe in conducting ethnographic studies of corporations has encouraged the development of alternative perspectives on the organization to complement and develop earlier, quantitative studies along more complex lines. Agar notes that, while anthropology may have similarities to psychological analysis, the more organic, emic perspective of anthropology means that there is less reliance on labels and categorization. His research into drug addict culture helped practitioners understand the wider context of addiction rather than simply focusing on the disorders of particular individuals, thus contributing to psychoanalysis through the anthropological case study method. Finally, the activities of anthropologists have also had an impact on political situations, as they provide intellectual justifications for the political and social

claims of groups, minority or otherwise, within societies. The case study method in anthropology is thus not only integral to the discipline, but contributes to the development of other fields.

Critical Summary

The case study method, in the form of the ethnographic study, thus is not only an integral aspect of anthropology, but, in many ways, defines and shapes anthropology as a discipline. While it has the drawbacks of needing total immersion, of problematic generalizability, and of the particular problems that relate to the deep personal involvement of researcher with subjects, it is particularly useful in situations where an impressionistic, organic mode of analysis is needed; when what is required is to know not simply what the group under study does, but how it feels to experience life from their perspectives, and also opens the doorway to the use of rhetorical devices as research tools.

Fiona Moore

See also Autoethnography; Case Study Research in Business and Management; Case Study Research in Feminism; Case Study Research in Psychology; Colonialism; Ethnographic Memoir; Ethnography; Ethnomethodology; Institutional Ethnography; Narratives; Naturalistic Context; Naturalistic Inquiry; Participant Observation; Postmodernism; Qualitative Analysis in Case Study

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CASE STUDY RESEARCH IN BUSINESS AND MANAGEMENT

Case study research in business and management examines issues that are related to the industrial and economic spheres of life. Topics of interest include human interaction, events, and processes taking place in organizational, business, and company settings. Through the rich empirical description of one or several real-life cases in their proper contexts, the purpose is to produce new knowledge concerning either the case itself or theoretical constructs.

Conceptual Overview and Discussion

Case study research in business and management can achieve various goals depending on the philosophical and disciplinary background, the goals and the research questions of the study, as well as the nature of the research design, including the number of cases to be studied. In principle, there are no limitations in terms of the underlying philosophical positions, ranging from positivism to interpretivism and constructionism, or in terms of descriptive, interpretative, exploratory, or explanatory goals. The research questions focus most often on business- and management-related phenomena, but not necessarily from the managerial or business development points of view. The point of view may also be that of the employees, customers, consumers, societal policymakers, or society in general. Practical, problem-solving, and even normative objectives can be included in the

Single-, multiple-, and comparative case designs are used, as well as qualitative and quantitative data from various sources (e.g., interviews, observations, statistics, minutes of meetings, annual reports, advertisements, campaign materials), and studies rely on various methods of analysis. Common features include avoiding overly simplistic research topics and designs that can be explored with quantitative research approaches, and producing detailed and holistic knowledge that is based on detailed analysis of empirical data rich in context. Because of the varied nature of case study research in business and management, there is a

tendency to consider case study research as a research strategy rather than as a research methodology or method.

Many of the classic business and management case studies rely on research designs building on one or a few cases. These draw on the ethnographic research tradition with the aim of providing a rich and detailed description and cultural understanding of business- and management-related actors, events, and processes. Single case studies may be longitudinal and historical. As an alternative to the classic case studies, Kathleen Eisenhardt has suggested that multiple and comparative case studies are valuable because they enable theory building through grounded-theory inspired analysis, which focuses on mapping common patterns and properties across several cases.

Päivi Eriksson and Anne Kovalainen, who have written specifically on qualitative research methods in business and management, describe in their book the differences between intensive and extensive case study research strategies. Intensive case study research strategy draws on the classic case study tradition, showing an interest in the case itself and developing an understanding of the workings of the case in a specific economic, social, and cultural context. Intensive case study research strategy focuses on one or a few unique cases with the aim of producing a contextualized and holistic description, interpretation, and explanation. Therefore, the explanatory power of the intensive case study research does not rely on statistical generalization but, instead, on understanding and analytic generalization.

In intensive case study research, the researcher is an interpreter who describes and constructs the case, and analyzes the empirical materials related to the case, often by focusing on the perspectives, conceptions, experiences, interactions, or sensemaking processes of the people involved in the study. The case under study is rare, unusual, or extreme rather than typical. However, the exceptional nature of the case is not considered a problem, but rather a key issue of research interest. The objective is to explore and understand how the case under study works as a configurative and ideographic unit. Therefore, intensive case study research does not produce new knowledge that could be generalized to other contexts in the

conventional meaning of generalizing empirical results.

Intensive case study research strategy may be carried out with static, cross-cut research designs, but dynamic designs, looking at change or development over time, or exploring time-related issues within a case are much more common. A challenge for intensive case study research is to relate theoretical concepts to empirical investigation. First, theoretical concepts to be used in the study are not always chosen prior to empirical investigation. In other words, they can enter the study at any phase. Second, once theoretical concepts have been chosen, there is a need for an ongoing dialogue between them and the empirical data and analysis.

Extensive case study research strategy differs from the intensive strategy because of its interest in mapping common patterns, mechanisms, and properties in a chosen context for the purpose of developing, elaborating, or testing theory. The cases and their detailed description are not the main focus of interest. In this strategy, the cases serve as instruments that can be used in exploring specific business-related phenomena and in developing theoretical propositions that can be tested and generalized to other business contexts or to theory. Not all the features of the cases are necessarily analyzed in detail, as in the more intensive case research designs. The main interest lies in investigating, elaborating, and explaining a phenomenon that is often theory related, not in understanding the workings of the cases themselves. The knowledge generated from the cases can add something new to the existing theory, for instance by testing it in a specific setting or context. Alternatively, the new knowledge generated through the analysis of the cases can be used to develop new theoretical constructs.

In extensive case study research, the selection of cases usually follows the logic of replication, enabling constant comparison of the cases. In addition, the cases may serve various objectives: They validate or extend emergent theory, fill theoretical categories, provide examples of extreme types, or replicate previously selected cases. In this regard, the need for selection criteria is no different from that of any other form of experimentation based on replication logic. The selection of the cases may also be influenced by pragmatic considerations, such as access and feasibility.

Application

Case study research in business and management is often used to investigate issues that are difficult or impossible to study with quantitative research approaches.

Two exemplars of the intensive and extensive case study research strategies in business and management are Päivi Eriksson and Keijo Räsänen's 1997 longitudinal study of the evolving constellations of product mix management in a confectionery company, and Melissa Graebner and Kathleen Eisenhardt's 2004 multiple case, inductive study of the seller's perspective of acquisitions.

Eriksson and Räsänen's historical single case study spans a 40-year period, from 1950 to 1990, with the objective of describing the long-term process of product mix management in its environmental and temporal context. The study relies on the theoretical idea of organizations as systems of interaction and influence among multiple actors, arguing that there is little systematic empirical analysis concerning how certain organizational outcomes (e.g., a product mix) are produced through the interaction of people and groups of people. The particular issue that formed the case itself was the change in product mix and the related managerial processes that concerned the interaction of constellations of manager groups in marketing, production, and general and top management. The case was selected on theoretical and methodological grounds: long history of changes in the product mix; stable ownership in a turbulent industry with an increased number of mergers and acquisitions; and excellent access, including good availability of archival data and personal interviews. Multiple data sources including personal interviews and informal discussions with managers and industry experts, price lists of confectionery products, documentary and archival data, industry statistics and information as well as media articles covering a period of 40 years provided rich empirical data, which were systematically triangulated. Interviews with the managers were a key criterion in choosing other data that were used in the study.

The study provides an example of how quantitative and qualitative data and methods can be combined in a single case study. In the first phase of the analysis, the changes in the product mix were analyzed with quantitative time series analysis focusing on the extensiveness (the number of brands offered to the market) and renewal (the number of new brands in the product mix). In the second phase, the managerial processes were analyzed with qualitative data and methods. This included the construction of a chronological case history covering the "whole story," combined with several event, action, and interaction histories. After the first two phases of the analysis, the concept "logic of action" was adopted to describe how each manager group developed his or her "own projects," which relied on specific objectives, goals, means, and arguments. In the third phase, the interaction of the management groups was analyzed by looking at how each management group proposed, championed, or objected to product mix changes and how they responded to the actions of other management groups over time. This led to the identification of three different types of interaction that produced changes in the product mix: dominance, where the logic of one group dominated others; compromise, where the groups avoided extensive interaction through fear of disagreements and conflicts; and integration, where the groups interacted more frequently and developed common goals.

Graebner and Eisenhardt suggest that, despite the variety of research on acquisitions, hardly any research is done from the seller's perspective. Their study is interested in the question: When and to whom do the leaders of entrepreneurial firms sell their companies? Because of lack of existing research, they use grounded, inductive methods and replication logic of analysis. Therefore, each of the 12 cases in their study is treated as an experiment that either confirms or disconfirms inferences that they draw from other cases of their study. The use of multiple cases is justified by the goal of achieving results that are generalizable beyond the specific cases that are studied. This is also why the selection of cases was given special attention. First, the researchers sampled four firms in three industries: networking hardware, infrastructure software, and online commerce. Further, three of the chosen case companies in each industry were acquired, but one was not. They also chose the companies on geographical grounds: 50% from the Silicon Valley, 25% from other parts of the western United States, and 25% from the eastern half of the United States. The reason for sampling the cases in this particular way is carefully explained in the study.

The study uses several data sources and both quantitative and qualitative data including 80 semistructured interviews, e-mails and phone calls, financial data, and archival data. The first phase of data collection consisted of 15 pilot interviews with managers, investors, and intermediaries. The pilot interviews together with snowball sampling were used to identify the most influential informants concerning the acquisition process.

Data analysis started with one researcher writing individual case studies synthesizing the data from various sources, which provided triangulation in order to increase objectivity. In addition, a second researcher, who had also read the interview data, formed an independent view of the case histories, which was then incorporated into the description of each case to provide a more complete picture of the respective case. In the next phase, inductive within-case and cross-case analyses were performed. The purpose of the withincase analysis was to allow theoretical constructs to emerge from the data without any comparison of similarities and differences across cases. After the analysis of each case was completed individually, cross-case analysis was carried out in order to search for similar constructs and relationships across the 12 cases. The cross-case analysis was iterative; it resulted in a framework describing the acquisition process from the seller's point of view. The framework describes how leaders are either "pushed" or "pulled" toward acquisition, which is characterized as a courtship between the two willing acquisition partners.

Critical Summary

When doing case study research in the area of business and management, researchers can choose between an intensive or extensive focus, depending on the purpose and goals of their study. Neither strategy is limited to any specific kind of empirical data or method of analysis. The advantages of case studies in business and management research relate, first, to the possibilities of examining and understanding unique, rare, and atypical companies and organizations as well as complex and dynamic events and processes. Second, the advantages relate

to the possibility of generating new theoretical constructs and testing theory in a way that is more sensitive to the social, cultural, and economic context compared to quantitative research approaches. The disadvantages of case studies include applicability of the knowledge gained through the descriptive and detailed accounts of case data. The examples above offer two views of the ways in which case study research can be used to provide rich description and contextual understanding on the one hand, and theory development on the other hand.

Päivi Eriksson and Anne Kovalainen

See also Analytic Generalization; Contextualization; Descriptive Case Study; Ethnography; Grounded Theory; Instrumental Case Study; Practice-Oriented Research; Replication

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CASE STUDY RESEARCH IN BUSINESS ETHICS

Research case studies in business ethics explore the appropriateness of decisions, actions, and moral reasoning in complex situations where there often is not an obvious right or wrong answer. In contrast to case studies designed for teaching business theories, research cases are not centered on a decision maker; rather they focus on a phenomenon, decision, event, or issue that has ethical implications for how business is conducted. A good case study allows readers to analyze the arguments and positions of key decision makers and stakeholders, as well as the contextual factors that influenced the actions and outcomes, to arrive at their own assessment of the moral implications of a situation. Business ethics case studies lead to an improved understanding of the evolution of ethical issues, comprehending the role of contextual factors in interpretations and judgments about acceptable means and ends, and refined moral reasoning as well as business practices.

Types of Research Cases

A common foundation for a business ethics case study is a critical incident with visible outcomes, such as the Union Carbide leak in Bhopal, India; Shell's plan for disposing of the Brent Spar oil storage buoy in the North Sea; or whistle-blowing in the Space Shuttle *Challenger* disaster. The critical incidence is used to set the boundaries of the research case study, while the visible outcomes emphasize the value of the case study to both practitioners and researchers. Outcomes of these types of case studies include a better understanding of how contextual factors influence judgment, identification of needed changes to practices or policies, impact of individual or group motivation, or evolving stakeholder expectations.

In contrast to focusing on one event, longitudinal case studies track changes over time. These types of research cases are important for the identification of evolving stakeholder expectations and changing ethical standards. For example, Margaret Griesse traces how DuPont's responses to stakeholder expectations led to the transformation of an explosives and chemicals company into a lifescience corporation, and how nongovernmental organizations (NGOs) and community groups shaped this evolution.

Comparative cases are appropriate for exploring potential cause and effect relationships, as well as the influence of operating practices or policies in different settings. It is also an appropriate methodology for examining why differences in judgment or decisions occur in similar settings. This design supports the identification of effective practices or policies, and can illustrate how generic practices can go awry under certain contextual factors. For example Knut Ims and Ove Jakobsen used contrasting cases

to examine the consequences of different strategic orientations to stakeholders. They compared the stakeholder strategies of two organizations developed to support the interests of vulnerable farmers, Max Havelaar for coffee growers and TINE for dairy farmers. The paradigmatic case (i.e., coffee growers) adopted a transparent cooperative strategy toward its stakeholders, while the negative case (i.e., dairy farmers) engaged in competitive tactics and collusion. The authors then compared the effectiveness of both approaches in reducing the vulnerabilities of the two groups of farmers.

Ethical issues are often the result of a ripple effect; that is, a decision or action that occurs at one level in an organization, with consequences occurring at unexpected levels in the organization or leading to unanticipated stakeholder reactions. Ripple effects are not often transparent; as a consequence, decision makers and stakeholders react on erroneous reasoning or inappropriate cause-andeffect relationships. A research case study provides the framework for exploring links across "assumed" unrelated decisions, identifying causal relationships across events, and identifying hidden consequences. One example of an adverse ripple effect is when human rights NGOs advocated for changes to children producing soccer balls in their homes in Pakistan, because the production process violated basic tenets of workers' rights. Farzad Khan outlines the history of soccer ball production in Pakistan, the entry of the media and NGOs to uncover the exploitation of "stitching families," the shift to factory production, and the perverse outcomes of these well-intentioned actions of NGOs.

Design of Research Cases

The choice of setting for business ethics cases is rarely random. Criteria for choosing a specific setting or organization include occurrence of a critical incidence (e.g., employee wrongdoing, stakeholder reaction), internal practices or policies (i.e., codes of ethics, human rights issues), access to key decision makers (e.g., senior management as well as frontline employees), access to key stakeholders (e.g., members of advocacy NGOs, community members), and specific combinations of contextual factors (e.g., allegations of improper behavior, industry reputation, changing performance standards, insolvency).

Ethical problems are ambiguous and complex, with multiple stakeholders and interpretations as to appropriate actions. Thus, it is important to collect data from more than one source. Archival data include Web documents of companies and stakeholder groups (e.g., NGOs, community groups, industry associations), documents from independent groups (e.g., think tanks, international agreements), and media reports (e.g., industry publications, local and national newspapers). Concrete information about the company's performance and policies (e.g., financial data, strategic goals, policies) is found in annual reports, policy documents, and media releases. Internal (e.g., e-mails, memos) documents provide information about informal practices and reward systems.

A common mistake in developing business ethics cases is sole dependence on information from third-party sources (e.g., newspapers, Internet) rather than from a variety of primary sources. Interviews should be the primary data source when there is a need to understand conflicting interpretations, ripple effects, or masked pressures on decision makers. Information collected in the first round of interviews directs the researcher to decision points and influential stakeholders/employees for the next round of data collection. Although interviews are a critical data source, the information obtained in them still needs to be triangulated with other data sources, such as internal company documents or annual reports.

A key benefit of case research in business ethics is the analysis of interacting contextual factors that lead to unexpected outcomes or different realities for decisions makers and stakeholders. Good judgment and expertise are based on recognizing the influence of contextual factors, and being able to anticipate in advance how they will shape realities.

Contextual factors that could influence perceptions of rightness or wrongness of an action include type of business, corporate structure, financial position, visibility of outcomes, past practices, competitors' practices, location of operations, role of government, formal policies or practices, sophistication of community or nonprofit groups, competitive position of the company, visibility of actions and consequences, level of technical sophistication, and current issues in the media. Important contextual factors may not be immediately transparent, so researchers need to monitor

other data sources continuously to ensure all key contextual factors are eventually included in the data analysis.

Data analysis is as much an art as a science. Numerous methods can be used in analyzing ethical issues. Four methods that are particularly valuable in monitoring for converging patterns across data sources are time lines, process/flowcharts, network channels, and stakeholder maps. Time lines help identify influential factors arising from different groups or individuals as an issue evolves. Process/flowcharts are useful for analyzing internal activities or decisions, and for identifying gaps between formal policies and actual practices. Network channels and stakeholder maps are good for identifying information flows and communication patterns to identify how multiple interpretations evolved. Part of the art of good data analysis is continuous monitoring for conflicting data or indications that assumptions or the analysis needs to be refined. For example, Bent Flyvberg noted that his training in neoclassical economics led him to assume that the interactions among local businesses and city council would be controlled through competition. After many layers of data analysis he instead found collusion and secrecy among leaders of the business community and city council that paralleled situations in countries with far less developed governments. Another study examined a Spanish ceramic tile firm's implementation of an environmental management accounting system. The company had externally and internally supported the need for environmental disclosures, and justified the new system to improve its communications with key stakeholders. However, Maria Masanet-Llodra found the system was not needed, nor was it used, to communicate with external stakeholders. Rather it was implemented because of the company's strategy to be a technical leader in all aspects of the ceramic tile industry.

Critical Summary

A well-written business ethics case provides sufficient information for a reader to reach independent conclusions as to what influenced decisions or actions, and to develop moral insight or judgment. Information on the principles followed in the research design, data collection, and analysis needs to be provided in the case or as an appendix. This

information allows the reader to ascertain the validity of the events and interpretations in the case. Including individual stories can be the most effective method for illustrating how or why differing rationalizations, interpretations, or reactions evolved. A review of appropriate moral principles or theories to clarify why specific actions or outcomes are unacceptable may also be appropriate.

As noted in the beginning, case studies contribute to the field of business ethics when they identify the evolution of moral standards, lead to new moral insight, or identify how contextual factors can lead to moral mazes. The focus of a business ethics case study should be a situation involving moral ambiguity, unexpected stakeholder reactions, or shifting moral standards. In general, these should not be based on violations of the law, unless the case illustrates problems with regulatory standards or processes.

Loren Falkenberg

See also Descriptive Case Study; Interviews; Network Analysis; Secondary Data as Primary; Situational Analysis; Storytelling; Triangulation

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Case Study Research IN Education

The use of case studies in research creates knowledge and understanding. In education research, using the case study approach not only creates knowledge and understanding but also sets a standard for good teaching practices through two main means—development and implementation of policy, and gaining experience through exposure to a particular phenomenon. Educational policies set a standard for good teaching practices that contribute to a greater overall level of education. Similarly, exposing student teachers, also known as preservice teachers, to a variety of teaching scenarios gives them the knowledge needed through experience to handle these situations effectively and appropriately if they arise during their teaching careers. Therefore, using the case study approach in education research enables an overall higher quality level of education of students.

This entry demonstrates how the case study approach is effective and beneficial as a research approach in the education field. Drawbacks to using this approach are also outlined, as well as an example of the use of case study research in inclusive education.

Policy Development

The use of the case study approach in education research allows for the setting of a teaching standard through the creation of new policy and/or modification of existing policy. This allows policymakers to develop policy in reflection of field research. The development occurs through a variety of means, such as research into varying phenomenon, and the monitoring of policy already in practice.

Researching Phenomena

Case study methodologies are flexible, allowing researchers to study a variety of phenomena ranging from unusual situations to complex interactions. These flexible methodologies are beneficial in that they provide researchers with tools for capturing the different elements that contribute to peculiarities of the phenomenon under investigation. This enables researchers to expose what may have contributed to the phenomenon, and allows policymakers either to incorporate this into new policy or to modify existing policy.

In research using only quantitative survey methods, outlier cases may be disregarded as they may be seen as errors or statistically irrelevant. The case study approach differs in that these outlier situations can be studied in depth, along with the other scenarios, by targeted sampling while still having a study with statistically relevant results. In order to capture all situations, participants are chosen from specified areas. Particularly with education research it is important to study these outlier situations as they are a reality, and proper teaching policy must therefore be developed so that effective and appropriate teaching methods can be practiced. For example, although some disabilities are rare, they do occur, and in order to effectively accommodate children with these disabilities, appropriate teaching policy must be created and implemented. Without the flexibility of the case study approach, which allows for targeted sampling, it would otherwise be difficult to appropriately and effectively capture these phenomenon along with other situations in a holistic way, so that they could be studied and an appropriate policy created.

The case study approach is also flexible in that it allows for the investigation of matters that may not have been included in the researcher's original goals. Unlike quantitative surveys, with this approach researchers are not bound to a defined set of questions, but are able to prompt subjects with further questions in order to obtain more detail. This dynamic quality of the case study approach allows the researcher to expose different patterns after the interviews that may have not been initially apparent, and allows for further research in either a new or a broadened direction. Again, with this new information, policymakers can develop policy by either incorporating the information or creating new policy in order to accommodate what was discovered through the field research.

This approach is flexible in that there is a wide range of contexts the case study can cover, ranging from a single case to an entire continent. This quality is particularly beneficial in educational research as it gives researchers the ability to be as general or as specific as is felt appropriate in order to capture adequate detail. If sufficient detail is attained in the research, conclusions may be reached, and eventually a refined policy may be developed to meet the needs of that particular scenario.

In small jurisdictions, case study research may be the only approach that makes sense. For example, in small rural school districts, if one wanted to research the available teaching services and their impact on a particular group of students, previous data might lead the researchers to adopt the case study approach. An example of this is the work undertaken by Frank Costa in 2007. Costa studied the experiences of three teenagers with traumatic brain injuries in a small school district. In this study, each teenager's experience and educational supports were analyzed and some general patterns emerged around educational supports. There were enough commonalities that some conclusions were warranted for that district. With a small sample size, the case study approach provides a logical means to complete in-depth research.

There can be challenges when trying to generalize the results from case study research, as what is observed is often contextually relevant to a particular phenomenon. The detail in the findings obtained when using the case study approach is both a strength and a challenge, but with careful analysis and supporting research, generalizations may be appropriate. For example, if a researcher wanted to look at an educational intervention in a school district, it would be appropriate to undertake a research project that has complex and varied data collection requirements, such as a case study approach. They could include focus groups, interviews, and observations and surveys of children, parents, and/or teachers. The results of such a study would apply to this school district, but the conclusions may also be of interest to other districts attempting a similar intervention. If after a few school districts attempted and researched the impact of the intervention and similar conclusions were found, wider applicability might be possible.

Monitoring Policy

Sometimes policy created to solve a problem works in theory, but does not necessarily work in practice. The case study approach can be used as a

research method to monitor an already implemented policy. In educational research, the case study approach can be an effective, rigorous approach when monitoring policy, especially for teaching policy concerning children with unique needs, or classes and/or schools that have implemented a unique program.

Through this approach, researchers are given the ability to monitor these policies through a mix of various qualitative and quantitative methods, such as surveys and interviews, leading to in-depth results from multiple perspectives. Using qualitative methods, the researcher can describe the surroundings of the case. This allows insight into any potential variables that could affect the researched scenario, such as political factors, community values, and so forth. Using quantitative methods allows the researcher to report on things like instances, location, and more. Together, these methods allow for a holistic representation of the scenario. Once the variables have been identified, further research may be initiated, or if the data are sufficiently detailed and convincing, conclusions may be reached. However, if research into implemented teaching policy shows that it may be ineffective and conclusions cannot be reached, the detail provided in the research while using the case study approach may give insight as which variables may have contributed to this ineffectiveness. Policymakers can then take this scenario and its variables into consideration when developing future policy.

An important quality of effective policy to take into consideration when monitoring implemented policy is whether it can be generalized to suit the diverse needs of communities, districts, and others. As mentioned previously, one of the benefits of the case study approach is that it allows researchers to use targeted sampling so that outlier cases may be investigated alongside other scenarios. This enables researchers to conduct in-depth studies to confirm whether the implemented policy is effective throughout the entire scope of its use. For example, during the monitoring of teaching policy across a school district, subjects can be chosen from different communities within the district, including those with different cultural influences. Because of these cultural differences, the implemented policy may shown to be ineffective in some areas. Therefore, it could be concluded that the teaching policy is not sufficiently generalized for the entire district, and action can be generated to develop the policy further, based on these results.

Benefits and Drawbacks

As illustrated in the previous sections, using the case study approach in educational research has many benefits when the goal is to develop teaching policy. However, the case study approach may not always be the method best suited for a research project. Limitations do occur and one must consider these carefully before applying this approach. Having the available resources should be a major factor in the decision to proceed with a case study approach. These resources include time, funding, and experienced and/or knowledgeable researchers.

In education research, the case study approach differs from quantitative surveys in that it enables researchers to complete a comprehensive study with a smaller sample size. The smaller sample size is compensated for through targeted sampling, enabling the research results to remain statistically relevant. A smaller sample size may be beneficial in that it may allow fewer researchers to carry out the research in a shorter amount of time. However, in contrast with quantitative survey methods, the research methods involved in the case study approach may not be possible to complete remotely, and may require that methods, such as interviews and observations, be performed in person. Therefore, depending on the scope of the research, studies of education systems may, or may not, require extensive travel and time in each location. Therefore, when deciding to take this approach to research, the size of the sample must be carefully considered.

Maintaining the anonymity of the subjects involved in the case study research is of the utmost importance, and it is it important to keep in mind when using this approach. This can become very difficult in some situations, especially where some of the variables that contribute to the phenomenon could potentially serve as identifying factors. Yet, as with all case study research, researchers must provide enough detail to maintain research validity. As demonstrated at the end of this discussion, this is an especially important concern in fields of research such as inclusive education.

In both of these scenarios, having researchers who are experienced and knowledgeable is useful in

that they may be more prepared to handle these situations. For example, an experienced researcher may be able to budget time effectively so that minimal resources, and therefore minimal spending, can be used while maximizing the scope of the research. An experienced researcher may also know how to develop effective procedures to ensure that enough detail is revealed in the research while maintaining minimal risk of identifying the participants.

Teaching Teachers With Case Studies

Holistically described scenarios aid in allowing preservice teachers to learn about situations they may encounter in practice. This pre-exposure allows these teachers to form opinions and decide on appropriate actions, giving them the tools to handle these situations appropriately and effectively. By retelling the story, this presents a standard teaching method to follow, or how that standard may be changed to suit the needs of a particular scenario. It is also possible to present a case study to show ineffective use of policy, so that teachers may learn from previous errors and not repeat them.

Inclusive Education

Inclusive education has emerged over the past few decades as an important approach to educating children with special needs. This approach emerges out of a human rights perspective, that all children deserve an education with their age appropriate peers. Inclusive education is gaining international acceptance with endorsement from the United Nations and many countries.

The challenge with researching inclusive education practices is the difference in approaches to education. For example, in the United States, inclusive education is regulated at the federal level while in Canada it is a provincial responsibility. Even at the school level, approaches to education can vary from multi-age classrooms to standardized classrooms. Each child placed in an inclusive classroom may require different approaches to education—a child with autism may require different modifications than a child with attention deficit disorder.

These complexities and realities require educational researchers to adopt a research approach

that can capture the unique aspects of each situation. Case study research is not only an ideal approach to researching inclusive education, but it can also capture the richness of data necessary to understand the multifaceted aspects of the inclusive classroom environment.

Especially vital when undertaking case study research in inclusive settings, the contextual situation must be described so that the reader can understand the situation. Multiple views must be sought to understand the interactions of players with the environment. Multiple sources of data need to be collected, including data that reflect the educational mission, such as achievement data, if appropriate. As always, especially with respect to inclusive case study research, one ethical issue that must be particularly considered is anonymity. In inclusive educational settings, the participants must be described thoroughly so that the reader understands the dynamics; yet this can be challenging to do without risking their being easily identified.

The power of case study research is that it can ask the questions of "why" and "how," which are important in education practice. These are the questions that practitioners and policymakers need answered. As more and more case study research is conducted in inclusive education, patterns will emerge that provide researchers and educators with important results that can influence policy and practice.

Case study research can provide rich holistic data that contribute to the understanding of complex situations. Inclusive education is an example of an area that is complex, and each situation is unique with its own challenges. Case study research is a logical approach to researching many aspects of inclusive education.

Critical Summary

Case study research has the potential to contribute to the larger field of education. It is critical that when reporting on the research, authors ensure that they pay attention to the larger context of education reform and its impact on the classroom. The case study approach is an effective method for educational research, allowing researchers to develop policy in order to set teaching standards, helping to increase the overall level of education of students. The case study approach can also be used in education research as a method of providing

teachers with experience, so that they may become knowledgeable and adequately prepared to handle a variety of situations in the classroom.

Vianne Timmons and Elizabeth Cairns

See also Anonymity and Confidentiality; Case Study Protocol; Case Within a Case; Cultural Sensitivity and Case Study; Ethics; Sampling

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CASE STUDY RESEARCH IN FEMINISM

Feminism is a doctrine, ideology, or movement that addresses and advocates for the equal rights of women. In the context of case study research, feminism is a theory *and* a research practice; a framework that can be used to examine, analyze, and critique the lives of women.

Conceptual Overview and Discussion

Feminist research has as its objective the study of the domination and oppression of women in order to change and/or eliminate the sources of that oppression. It emerged from concerns about the invisibility and exploitation of women across several centuries. While it is often thought that feminist research focuses solely on women's experiences and issues, this is not the case. Recent feminist research conducted within the socialist feminist paradigm, for example, has examined men as a social category. David Collinson, Jeff Hearn, Deborah Kerfoot, David Knights, and Patricia Y. Martin, among others, have used feminist theories to examine the intersection of masculinities, management, and organizations. Feminist theories, then, can be used to study any group or situation in which one or more individuals are considered to be the "other," that is, dominated or oppressed in some manner, or who are located outside of the mainstream (as it is defined in a particular context).

Feminist research has been conducted in such diverse fields as accounting, anthropology, history, organization studies, and the sociology of workers, to study a large number of diverse phenomena. For example, feminist research has examined women entering and working in traditionally male occupations; gender and race in organizations; gendered subtexts of organizational and institutional structures; the gendering of institutions such as education; and the gendering of leadership. It should be noted, however, that not all research directed toward gender issues is conducted from a feminist perspective or uses feminist theories. Gary Powell's research on women holding management positions, for example, does not explicitly or implicitly seek to achieve social change.

Feminist Perspectives

Rosemarie Putnam Tong discusses the diversity of feminist thinking in her introduction to *Feminist Thought*. She notes that the use of categories or labels in feminist thought can assist in communicating to a broader public that feminism is not monolithic and that not all feminists think alike. The labels can be used as teaching tools to mark a range of different approaches, perspectives, and frameworks that feminist scholars use to shape explanations of and propose solutions for the elimination of women's oppression. Just as there is diversity in perspectives of feminist thought, there is diversity in the names of the categories used to describe the perspectives. These labels are not intended to be definitive or mutually exclusive.

Pushkala Prasad identifies four feminist scholarly traditions: liberal, women's voice/experience, radical, and poststructural. Tong identifies eight feminist thought categories: liberal, radical, Marxist and socialist, psychoanalytic and gender, existentialist, postmodern, multicultural and global, and eco. Marta Calás and Linda Smircich discuss seven feminist approaches or theories: liberal, radical, psychoanalytic, Marxist, socialist, poststructuralist/postmodern, and third world/(post) colonialism. All of the perspectives are grounded in the recognition of male dominance in social arrangements (e.g., patriarchy and sexual division of labor) and all have a stated desire to change or eliminate this domination. Where the theories differ is in the issues they address, the questions they raise, and the vocabulary they use in the research process. Calás and Smircich note that each feminist approach provides alternative accounts for gender inequality, frames the research problems and questions differently, and proposes different courses of action to resolve identified problems. Case studies in feminism can be conducted using any of the perspectives identified here, although researchers may find some of them work better than others. Three of these perspectives are described in the following paragraphs.

Radical Feminist Theory

This theory emerged in reaction to elements associated with male forms of power. This version of feminist theory directs its focus toward creating "woman space" through alternative institutions

and organizations. It seeks out answers to questions concerned with the exploitation and oppression of women embedded in institutional structures such as family, capitalism, bureaucracy, education, and science. Its aim is not to preserve the status quo; rather it seeks to find alternatives to patriarchy. Kate Millet, Shulamith Firestone, Mary Daly, and Marilyn French are among the feminist thinkers who are associated with the radical perspective. Case study research seeks to identify and describe feminist organizational practices that could provide alternatives to patriarchal organizational structures, processes, and practices. Many of these studies report on situations that are emotionally charged; where the ideals of equality and collective decision making collide with differences in class, race, and ethnicity, and work styles.

Psychoanalytic Feminist Theory

This theory is rooted in the work of Sigmund Freud. Researchers working in this tradition seek to understand the whole individual and how she relates to the world. They deviate from Freud, however, in their belief that differences between women and men are not biologically determined (i.e., differences are not present from birth). These researchers believe it is specific social arrangements such as the patriarchal family, not biology, that are responsible for distinctions in the psychological development of females and males. Psychoanalytic feminist research examines differences between women and men in a wide range of settings (e.g., work organizations, educational and religious institutions) and activities (e.g., leadership, management style). Recommendations for change are premised on the view that differences provide an advantage, not a problem, for women and that the inclusion of feminine characteristics and different approaches will improve social arrangements. Changing social arrangements, it is believed, will lead to equal gender development. Nancy Chodorow, Dorothy Dinnerstein, and Juliet Mitchell are feminist thinkers associated with psychoanalytic feminist thinking. Other feminists have critiqued the psychoanalytic perspective for further entrenching, not eliminating, gender stereotypes through its emphasis on differences.

Socialist Feminist Theory

This theory, which is sometimes presented in conjunction with Marxist feminism, is an amalgamation of the positive ideas and insights generated from Marxist, radical, and psychoanalytic feminism. At the same time, socialist feminism seeks to avoid or overcome the perceived limitations in each of the three theories. Marxist thought is perceived to be gender-blind, and both radical and psychoanalytic feminism are perceived to have universalization tendencies, which ignore cultural and historical circumstances. Socialist feminists, such as Iris Young and Alison Jagger, view oppression as a product of the political, social, and economic structures within which individuals live. Researchers are interested in obtaining answers to questions such as: Why does capitalism assign women to the home and men to the workplace? The research explores the embedding of gender assumptions in society's expectations and the intersection of the assumptions with rules and practices found in organizations, institutions, and society. Proposed solutions emerging from the research are usually more radical than those that seek to place women and men on equal footing within existing frameworks of processes, practices, and taken-forgranted assumptions.

Application

Beverly Metcalfe and Alison Linstead examined and challenged the masculinist discourse found in theories and empirical research about teams using a poststructuralist feminist perspective. In their research they analyzed the discourse of teams using textual analysis, which highlighted the implicit gendering processes present in the discourse. They then conducted a case study of an organization that was implementing a change initiative intended to increase the use of teams within the manufacturing process. They conducted indepth, semistructured interviews with 30 individuals at various levels in the organization. The authors had a dual role in that they also had been engaged by the organization to advise on the development and implementation of the change initiative. They describe their dual role of consultant and researcher, noting that the dual roles were positively viewed by members of the organization. They found that the theories and discourse of teams contained ambiguous power relations resulting from the construction of gendered identities and gendered relations of power in teamwork practices.

Jayne Raisborough challenged the prevailing conceptions of career as a linear progression in her case study of women Sea Cadets. Jayne was a member of the Sea Cadet Corps, which allowed her access to the research site. At the beginning of her study she found that her dual role of member and researcher was not possible to maintain because her rank in the Sea Cadets was more senior than that held by many of her potential research participants. As a result, many participants appeared cautious and guarded in answering her questions during interviews. She resigned in order to remove this obstacle, only to find that she was now viewed as an outsider and a failure by the Sea Cadets organization. Jayne describes her personal difficulties in conducting the research from a position of being both an insider with an intimate knowledge of the organization and an outsider. She notes, however, that her position provided her with a "sharper critical focus on the ways" that participation in this type of leisure activity works.

Kimberly Sultze conducted a case study of women and power using the special photography issue of the New York Times Magazine published in the fall of 2001. She conducted a cultural analysis of the content, drawing on feminist theories and critical frameworks. Her objective was to investigate whether or not women might be portrayed differently when photographed by women photographers. Kimberly describes her approach to analyzing the issue in considerable detail; her use of interdisciplinary research methods and her perspective that the visual images (both editorial and advertising) formed part of a larger visual culture and did not appear in isolation. She provides a list of questions that she used to guide her analysis and critique and describes her approach to analyzing both the editorial images and advertising images. Finally she provides a lengthy description of each image, its positioning on the page, and its relation to other images. Taken together, this information allows readers to gain insights into how the analysis was conducted and how the researcher arrived at her interpretations and conclusions. She found that even though women photographers had taken

the editorial images, a different point of view about women and power did not emerge. She calls for a change in the social and economic structure of media production as a means to move beyond the presentation of typical female stereotypes.

Critical Summary

Research conducted from a feminist perspective is frequently challenged on the basis that it is politically motivated: militant and hostile to anything concerned with males and masculinity. Feminist research is a critical discourse designed to critique past and continuing patterns of male domination. Therefore it is always grounded in a political agenda. Research that does not challenge the status quo and taken-for-granted assumptions concerned with male domination is not feminist research. It is not fair, however, to presume that all feminist research or feminist researchers are opposed to men.

According to Liz Kelly, Sheila Burton, and Linda Regan, a feminist researcher has two roles in a feminist research study. She (the researcher) is part of the process of discovery and understanding, and she is responsible for creating change. In order to fulfill the first role, the researcher must insert herself into the research. Failure to fulfill these two roles can lead to poor feminist research.

The researcher's personal social situation and personal research agenda can guide or impact the direction of the research regardless of any attempt by the researcher to remain neutral (i.e., have no effect on the research process and outcomes) and objective. The perceived absence of neutrality and objectivity has been strongly criticized by those working in the positivist scientific paradigm. It is their contention that failure to remain neutral and objective compromises the research process and calls into question the validity of the research. This critique can be overcome, however, by providing autobiographical details about the researcher and discussing the messier realities of the research process. This type of detail is normally excluded from positivist research.

A second concern that arises because of the researcher's insertion into the research concerns power. If the researcher has power over the participants (perceived or actual), participants may behave or report events differently than in the absence of a power relationship.

The use of case study research methodology will invariably require that the researcher include interpretation leading to the question of whose interpretation is presented, the researcher's or the research participants'? Interpretation is political, contested, and unstable. It is important, therefore, that the researcher explain the basis of her interpretation. The explanations should address the decision-making process that was used by the researcher, the methodological logic on which these decisions were made, and the process of making the interpretations. For example, which empirical materials were used to arrive at a particular interpretation, were other interpretations considered and discarded, and so forth.

A final criticism relates to the presumption and presentation of the research findings as representative of or applicable to *all* women regardless of race, class, sexuality, marital status, or occupation (i.e., universalization). This critique often comes from within the feminist research community itself where it is argued, for example, that research representing the issues faced by Western, white, professional women does not speak for or represent the interests of all women.

Case studies can be used to explore and critique the domination of women by men from a variety of perspectives. Feminist theories can also be used in case studies designed to examine the domination or oppression of groups of people on the basis of race, ethnicity, and sexuality. The researcher is not limited to one particular method. In the examples presented here, researchers used a variety of methods including interviews, textual analysis, and cultural analysis to access areas of interest. There are other methods that can be used in qualitative and quantitative case studies. Researchers should select the method or methods most appropriate for their assumptions about the nature of social reality and the production of knowledge.

Peggy Wallace

See also Critical Theory; Gendering; Liberal Feminism; Masculinity and Femininity; Poststructuralist Feminism; Radical Feminism

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CASE STUDY RESEARCH IN MEDICINE

The use of the case study as a research approach within medicine shares many of the features of case studies in general; however, the traditional alignment of the field of medicine with natural science approaches as well as the close relationship between case study research and the clinical practice of medicine have resulted in several distinct forms of case study research. The majority of case study research projects in medicine are premised on empiricist traditions, yet there remain two distinct approaches to the use of case study research in medicine: the first firmly anchored in the language and epistemic assumptions of a logical empiricist research paradigm, and the second, which has embraced an interpretivist orientation or an organizational analytic approach.

Conceptual Overview and Discussion

The case study in clinical research typically fits within an empiricist research paradigm, although

many examples of case studies exist that subscribe to interpretivist or mixed methods approaches. Research in medicine has a variety of foci, and researchers from a variety of research traditions (e.g., nursing, rehabilitation medicine) contribute to the totality of research in the field. Similarly, case study research has multiple variants within the field of medicine. In particular, case study research has been used to great effect in the study of the organizational contexts of healthcare. In their 2002 text on embedded case study, Roland Scholz and Olaf Tietje define this type of case study research as *program evaluation*.

From the literature, three distinct types of case study research in medicine emerge: (1) clinical case studies, (2) interpretive case studies, and (3) program evaluation. Both interpretive case studies and program evaluation have their origins in case study research in the social sciences, and, consequently, share the epistemological features of their progenitors. Allied health disciplines (particularly nursing) favor these types of case study research, while researchers in faculties of medicine tend toward clinical case studies as their preferred approach.

The distinguishing variable in the selection of case study type for research in medicine, according to Scholz and Tietje, is the purpose of the case study research. Program evaluation case studies are commonly employed in instances where there are concerns with and/or an interest in changing the current approach. In contrast, interpretive case study research has been employed where the object of the research is medical career issues, work–life issues, or issues of patient perceptions and experience of care. Clinical case studies are employed where the object of research is medical intervention or the diagnoses or definition of disease.

Application

Clinical case studies have a history in medicine as a tool for both teaching and research. As an example, the neurologist Oliver Sacks has used case study to great effect for teaching and research to increase understanding of various aspects of neurological disease. A historical example of the impact of the case study is that of H. M., who underwent bilateral mesial temporal lobe resection in the early 1950s and has been the subject of multiple publications on epilepsy, memory, and temporal lobe function.

With the rise of evidence-based medicine (EBM) in the 1980s there was an increase in awareness of "best evidence" and in the development and use of tools to rate research based on levels or hierarchies of evidence. The Cochrane Collaboration is an example of an organization whose focus is on systematic review of research in healthcare, with most Cochrane reviews being of randomized control trials (RCTs). The RCT has been held up as the gold standard for research in medicine. In the language of EBM, case studies are viewed as being near the other end of the spectrum compared to RCTs and as such are defined as "weak evidence" with respect to medical research. Brian Brighton and colleagues' discussion of the hierarchy of evidence, however, acknowledged that case studies are common in the medical research literature, and recognized their value in terms of identifying areas for research, describing rare occurrences, and building hypotheses.

Critical Summary

In recent years there has begun a reconceptualization of "best evidence." Robyn Bluhm, and later David Atkins, wrote about the limitations of RCTs and the value of other methods of research to further the practice of medicine. More specifically, Trisha Greenhalgh, followed by William Miller and Benjamin Crabtree, argue that there is a place for qualitative approaches in evidence-based practice.

Alan Kazdin suggested that strengths of case study research include that it is a research design clinicians can make use of without need of excessive external resources, and that it avoids the distillation of research subjects, which has the potential to decrease clinical relevance or usefulness to practitioners. Additional advantages of case study design are in pilot testing novel approaches to treatment and in situations where ethical concerns limit the use of other methodological approaches. Kazdin cautions that the challenge of case study research is to rule out alternative hypotheses that could account for the observations of the study.

According to Kazdin, a number of steps can be taken to strengthen the validity and usefulness of the case study in research. In addition to rich description, which is a hallmark of the case study, the inclusion of other forms of description that are considered more objective, such as standardized

test results, rating scales, and physiological measurements, would make comparison with the population of interest easier. Replacing a single-assessment approach with multiple or continuous assessment would also strengthen the study. Prior to treatment, multiple or continuous assessments provide a baseline from which to predict future behavior and, therefore, the validity of observed changes following treatment. The timing and degree of the effect observed are other variables that can influence the power of a case study and infer a causal relationship.

By definition, in case studies, the sample size is extremely limited (i.e., n = 1). From within an empiricist paradigm, this is viewed as a weakness. Kazdin suggests that case series in which several case studies with a common factor and similar response to a treatment are compiled may be a way to improve the generalizability of the observations. In addition, the heterogeneity of the subjects, beyond the factors held in common, serves to provide evidence that the effects observed are related to the common factors.

T. Paslawski

See also Case Study Research in Business and Management; Case Study Research in Education; Case Study Research in Psychology; Diagnostic Case Study Research; Epistemology; Generalizability; Program Evaluation and Case Study; Theory-Building With Cases; Theory-Testing With Cases

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CASE STUDY RESEARCH IN POLITICAL SCIENCE

Political science has no single definition or application for what is known in the discipline as a case study. What it means to do a case study—whether this should be a single case or comparative

research, done in a traditional field research fashion or in an experimental mode, informed by interpretive presuppositions or realist ones—varies across disciplinary subfields, and these issues are contested in the discipline today. There is a rich history of case study research in bureaucracy, implementation, and other public administration and public policy studies, as well as a vibrant contemporary methodological discussion within comparative studies of political systems.

Historical Meanings and Disciplinary Organization

In part, the meaning of case study in political science draws on earlier meanings in other fields. One such is psychology, where case studies have been used since the mid-1800s to capture *details* that provide *insight into human behavior*, as well as to develop clinical *methods*. Medical cases are used in similar ways. In social work, "casework," developed in the 1920s, entails the *detailed reporting* of a client's history and needs as a way to support analysis for intervening through the helping process.

Another historical source is the Harvard Business School's development in the 1950s of "cases" as a method of instruction based on *real-life contexts* to encourage *active learning*, a usage developed further at the Maxwell and the Kennedy schools. These italicized features can be found in earlier political case studies, including Peter Blau's 1955 *The Dynamics of Bureaucracy* and Graham Allison's 1971 *Essence of Decision*, both of which serve as classic examples of case studies that demonstrate theorizing that is situated in real-life historical and contextual details of human action. How to access or generate such data details and how to establish and evaluate their scientific standing is the focus of debate over "case study method."

To understand the role and meaning of case study within political science today, one needs to know something of its internal disciplinary organization; and this varies by both department and country. North American political science typically has four subfields: political theory, national government (e.g., American, Canadian), comparative politics, and international relations (including security studies). Public policy and public administration, to the extent that they are still part of political science departments, are either separate or treated

as part of national government studies. In Europe, political science is commonly referred to as politics or government studies and is only occasionally divided into subfields, such as European politics, international relations, or European public administration. With the exception of political theory, all subfields draw on the case study as a method of analysis, but with different interpretations of what it means and how to do it.

Whereas textbooks describe "the case study" as the most common method of analysis in political science, these words are then used to refer to a range of meanings and usages that vary from specific methods to a research approach. Those advancing "case study" as a set of *methods*—the predominant meaning—engage the concept as a specific form of research involving multi-site studies aimed at establishing causal inferences and hypothesis testing. Those taking the second perspective typically treat "case study" as part of a broader *methodology* that emphasizes human meaning and reflexivity. These scholars more often engage in single-site research aimed at detailing the lived experiences of persons in that setting.

Despite their distinct histories and occasionally competing ontological and epistemological presuppositions, the discipline's subfields share a widespread agreement associating case studies closely with qualitative research. This comes from the fact that case studies rest on the intense study of lived human experiences by means of on-site field work and some combination of (participant) observation, (in-depth) interviews, and/or document analysis. Each of the two perspectives described above places a different accent on case study methodology. The intra-disciplinary divide concerns the extent to which case study research is perceived as becoming more and more detached from its human-, meaning-centered origins, along with a judgment on the desirability of that detachment.

What began in the 1950s as the investigation of unique practices in sociopolitical life (the second perspective) has increasingly in the past quarter century been expected to change that approach, situating it instead in a methodological playing field that takes one understanding of natural science methods and techniques as the requirement for studies of the political to be seen as scientific. Recent textbooks formalizing case study research in political science in ways consistent with that

understanding have contributed to the development of intra-disciplinary disagreements over the character of case study research.

Meaning-Centered Origins: Single-Site Studies

Early case studies, and many done today, consist largely of single-site studies that allow researchers to immerse themselves in the uniqueness of real-life events in what might be called a traditional Chicago School approach. The analysis is inductive and human centered and is driven by a desire to learn about the potentially multiple social realities that characterize the setting and its "actors" (or "members"). In this form, the case study is perhaps the most archetypal qualitative methodology of all, paralleling Chicago School participant observation in sociology, especially the community and occupational studies, and ethnographic study in anthropology characteristic of the 1930s through the 1960s.

The meaning-centered case study perspective is rooted in single-site studies. "Single-site" has been equated by some methodologists with single "n" studies, a point that is important for understanding contemporary disagreements about the value of case study research. Simply stated, a single-site study refers to research carried out in one relatively bounded setting (e.g., a governmental organization, a community), whereas a single "n" study refers to the number of observations conducted as part of experimental research. "Observation" means different things. Field research-based case studies engage in observation understood in an ethnographic sense, meaning that the number of "observations"—people spoken with, conversations conducted, events and/or interactions seen and/or participated in, documents read, and more—is not coterminous with the number of locations in which the case study is carried out.

From this perspective, a single-site case study generates a multitude of qualitative-interpretive, within-case "observations" reflecting patterns of interaction, organizational practices, social relations, routines, actions, and so on. And when "setting" is understood from an open systems perspective, the number of sites may also multiply, especially as one traces the focus of study—say, a policy being implemented—across the full range of actions entailed. Observation as treated in an

experimental sense—the source of single "n" terminology—is based on the principle that a larger number of cases subjected to analysis yields more valid general principles, another logic altogether.

In the national government subfield, for example, a case study might analyze an institution, such as the courts or political leadership. Richard Fenno's 1978 case study of members of the U.S. Congress involved "soaking and poking," accompanying and interviewing them as they traveled about their districts. While the single site was the Congress, Fenno investigated the tactics, perceptions, and overall political behavior of the elected representatives in multiple home sites.

Case study research has also been used for exploring local government and/or agency levels, especially within public policy and administration subfields. Herbert Kaufman's 1960 case study of the U.S. Forest Service examined the practices of various management strategies for shaping the behavior of its far-flung employees: a single agency, but multiple geographic sites. Jeffrey Pressman and Aaron Wildavsky's 1973 case study on the local implementation of U.S. economic development policies identified the twists and turns in multilevel decision making as the reason that agreeing on policy objectives was a lot less complicated than implementing them—another single case, here with multiple organizational and departmental settings.

These three case studies offer contextualized insights into the unique, situated practices of human political life. They represent a period in political science when "single-site" case studies were common. As qualitative researchers have come under increasing pressure, especially following the publication of Gary King, Robert Keohane, and Sidney Verba's 1994 Designing Social Inquiry, to conform their research more and more to large "n" studies, they have increased their attention to theorizing about case study methodology, particularly within the subfield of comparative politics, with a noticeable recent growth in methods books and a turn toward analytic approaches aspiring to match the logic of quantitative research. This marks one of the intra-disciplinary splits between those "qualitative" researchers who accept this approach (whether they do single- or multi-sited studies) and those "interpretive" researchers who follow less realist approaches under a broader understanding of science.

The Case Study as Controlled Research: Multi-Site Studies

Multi-site case study analysis is a hallmark of the comparative politics subfield, which has, to a large extent, laid claim to comparative case study research as its own, unique method. Like singlesite case study scholars, multi-site comparativists draw upon case studies to explore human diversity, although they are perhaps more inclined to use these cases to establish general propositions about human conditions and interactions. In some instances, comparative case studies are used as a way to focus on detailed analysis of human diversity with the aim of revealing uniqueness. Theda Skocpol's 1979 comparative historical case analysis of the unique social revolutions in France, Russia, and China aimed at general theoretical understanding concerning what leads to political revolution. Robert Putnam's 1994 comparative case study of regional government in Italy analyzed the significance of civic community for thriving democratic government.

Adding "comparative" to "case study" brings additional methodological requirements concerning project design and research objectives. By identifying and distinguishing between dependent and independent variables, comparative case studies examine covariation across case data, by contrast with single-case studies done from a qualitative approach, which typically search out congruence between theory and data, looking for theory-driven within-case expectations; and with single-case studies done from an interpretive approach, which are more likely today to appear as ethnographic or participant observer studies and which often use case material to explore particular theoretical issues.

Comparison is treated as a "controlled" approach to research whereby the researcher is said to explore similarities and differences systematically, based on a predetermined classification of cases (e.g., J. S. Mill's method of difference or method of agreement). Research design, then, puts great emphasis on the criteria for comparability as the force driving case selection. Most qualitative comparative case study scholars make reference to small "n" comparative studies; most speak of variables, about inference and control, classification and typology.

The aim of controlled study—generalization—is advocated, on the whole, by case study scholars following positivist ontological and epistemological presuppositions and their associated methods of inquiry. This variables- and causal inference—centered approach parallels the work associated with large "n," statistics-based research. The focus on law-like generalizations that this entails runs counter to a more interpretive approach that focuses, instead, on *verstehen*, thick description, reflexivity, and other such elements for establishing the trustworthiness of the research.

Proponents of qualitative comparative case study research differ from their quantitative colleagues in that they limit the number of sites they study (fewer than six seems to be the rule of thumb), and they mix numerical and word forms of reporting in an effort to combine generalization and uniqueness. This latter idea is one advanced largely by Charles Ragin, who claims that comparative case studies not only assess general causal relationships but also have the ability to generate in-depth, contextual understanding. Looking from the outside, the methodological views of these qualitative scholars appear to be merging with quantitative researchers, both of them advancing a shared notion of science.

A 1971 article by political scientist Arend Lijphart sheds some light on these developments. Lijphart used natural science logic in assessing methods of scientific inquiry for conducting political research. He prescribed a general set of methods ranked by scientific value aimed at generalization and causation with the goal of producing scientific explanations. He listed experimentation as the first and most desirable method for scientific inquiry, followed by the statistical method, the comparative case method, and, last, the (single) case study method (which, albeit, is closely connected to the comparative method). Lijphart's hierarchy is based on the degree of control, the manifestation of time order, and the presence and strength of association, all of which are marshaled in support of causal inference. According to this ranking, a method becomes less "scientific" as it digresses from an experimental research design. This hierarchy of scientific methods and tradition of privileging methods that establish causality are carried through to today's methodological debates concerning the scope and methods of analysis that are to characterize the political science discipline, including the place of case study among them.

The Contemporary Scientific Environment for Political Science Research

At the moment, that form of case study research that places case studies squarely among other methods aiming for causal explanations is on the rise. This is evident in the considerable attention given to developments in and applications of techniques such as qualitative comparative analysis (QCA), optimal sequence matching, necessary condition arguments, and typological methods for analyzing cases. Textbooks single these out as advancements in case study research, on the argument that they provide a step toward a desired methodological "rigor" while safeguarding traditional case study features.

Contemporary methodologists like Andrew Bennett, Henry Brady, David Collier, Alexander George, John Gerring, and Gary King have worked to develop case study research in these ways in response to critiques concerning what these researchers have perceived as the limitations of more meaning-focused, traditional forms of case studies. While these developments encourage reflection on the character of the method, the changes reflect a narrow understanding of science that rests on such terminology as selection bias, (internal) validity, reliability, and generalization.

A technical, detached, and often complex language recurs in the wealth of case study textbook chapters dedicated to presenting methodological safeguards for case study research. Entire chapters engage such procedures as "process-tracing" (within-case analysis to track links between likely causes and outcomes), "typological theorizing" (contingent generalizations based on systematic comparison and case selection), and "path dependency" (time reference used to explain causes and choices). All of these are intended to refute challenges to internal validity and selection bias attributed to case study research. This language assumes ontological and epistemological presuppositions associated with positivist and sometimes critical realist philosophies, at the expense of engaging with case study methods informed by interpretive philosophical presuppositions that would emphasize such criteria as thickly described narratives of situated lived experience, research positionality and reflexivity, and the multiple possible meanings of political language, acts, and physical artifacts.

These trends might be understood as a commitment to ensuring a competitive position for case study research in contemporary political science by updating earlier case study notions with newer, more effective tools. Alternatively, the trends could be interpreted as a defensive posture—the aftermath of a lingering 1963 remark by Donald Campbell and Julian Stanley about how single case studies had no scientific value. The King, Keohane, and Verba advocacy of a single approach to scientific inference for both the natural and the social sciences might also be understood to play a role. Either interpretation is indicative of a decisive turn toward the systemization of case study procedures in a particular direction, and this is portrayed in textbooks as a way forward for qualitative case study scholars.

Evaluating Case Studies and Concepts

Many of the aforementioned contemporary case study scholars explicitly promote combining quantitative and qualitative methods and devote considerable attention to issues of design as a way of ensuring scientific rigor. Their methodological writings focus on orderly, systemized, and verifiable case study procedures. Case study's use for a more interpretive understanding of social and human life is increasingly less visible. While it is still possible to find some references to the advantages of case study research for offering real-life insight into social phenomena, flexibility of methods, and sensible translations of theory, as in Bent Flyvbjerg's 2001 work, it is by far more common to find references to its (newfound) potential for testing hypotheses, examining causal mechanisms in detail, assessing the reliability of inferences, or developing internally valid measures of concepts.

A fair amount of discussion, especially in comparative politics, has focused on concept formation and definition and the extent to which the operationalization of concepts needs to be grounded in the case study at hand. This point lies at the heart of the differences between qualitative and interpretive case study research design and methods. The debate concerns a priori versus situated concept formation; that is, the stipulation of

concept meanings that are defined prior to the research versus "meanings-in-use" that are allowed to emerge during field work in the course of the research. A priori concept formation is prominent in comparative or multi-site case study research and goes hand in hand with a "controlled" case study research design. The argument for such an approach is that even though concepts may have different meanings in use, this is a matter of degrees of difference rather than differences in type of concept, making comparison possible.

Other scholars argue that conceptual meanings cannot be fixed in the abstract, that they are highly contextualized. In such an approach, the uses of terms and definitions are linked to unique experiences and embedded in time and space; influenced by linguistic, country and/or regional, organizational, and/or communal history and situation. The argument emphasizes the need to understand concepts as rooted each in its own particular setting. Frederic Schaffer's 1998 Democracy in Translation, studying the meaning of "democracy" to the people of Senegal, is an example.

The general claim that case study research is a qualitative method remains, but scholars differ on the meaning of this label in the argumentation for case study research.

Critical Summary

Case study research remains a central method of analysis in contemporary political science research, despite periods of more and less acceptance and the rupture between those who wish to preserve its earlier form and those trying to bring it closer to quantitative modes. Growing attention to methods and methodology in the context of particular meanings of "science" is also reflected in the textbooks. Until fairly recently, case study methods textbooks were rare and, for a while, Robert Yin's 1984 text (in various editions) was the only one available. It was an influential piece, but it has taken case study's traditionally more interpretive focus in realist, positivist directions.

A large part of today's methodological treatments of case study research in political science comes from comparative politics scholars, and that subfield is currently providing significant impetus in the direction of multi-sited, comparative case study research. Those methodologists are making every effort to articulate what comprises a case study in order to increase its acceptance in a wider, largely quantitatively oriented methodological playing field. More and more, case studies are being described as ranging between little detail across many cases and a lot of detail for a few or a single case. Prior notions of meaning-giving inquiry are either being bypassed or overshadowed by specific terms and methods that ignore interpretive inquiry in favor of attention to variables-based causal inferences.

While it is difficult to anticipate the future of case study research in political science, it can be said that much depends on how present methodological debates unfold and how intensely political scientists hold on to earlier forms of case study research as a legitimate way of doing science.

Dvora Yanow, Peregrine Schwartz-Shea, and Maria José Freitas

See also Comparative Case Study; Constructivism; Ontology; Power/Knowledge; Qualitative Analysis in Case Study; Reflexivity; Thick Description; Verstehen

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CASE STUDY RESEARCH IN PSYCHOLOGY

Case studies in psychology reconstruct a major episode in people's lives by identifying a particular set of problematic or otherwise interesting events and relationships that naturally occurred in the real world. They can be studied or understood only in their context as they merge with their environment, so it is difficult to draw precise boundaries. The analysis and interpretation of case studies is most often intended to lead to a better understanding of the area of inquiry; that is, deriving or testing theories. Depending on the branch of psychology that uses case study, not only individual processes and possible solutions to their problems may be the focus but also processes within groups, institutions, or communities. Psychological case studies can have many forms, such as narrative accounts, detailed technical or judicial reports, documentary films, or sets of observations.

Conceptual Overview and Discussion

Psychological case studies focus on individuals, though different interpretations are possible that include context or time dimensions. They frequently share characteristics with case studies in other disciplines within social sciences whose focal points are description and analysis of contextual factors, social structures, and processes in order to reach a more global understanding of events.

Most psychological case studies are retrospective in style and follow an idiographic approach wherein both qualitative and quantitative proceedings are feasible. Apart from a description of the events that are to be examined, psychological case studies most often include a causal analysis of central problems, and sometimes also recommendations for courses of action based on the analysis.

Wilensky's 1983 study proposes a general theory of psychological case studies that helps to assess whether a case study is a psychological one, and to judge its quality as well. According to him, a psychological case study consists of a person, specified by the formula "identity + description"; a situation, characterized by "constraints + opportunities + contingencies"; and a related outcome, being "changes in person + changes in situation."

In differentiation from life histories that consist of a series of case studies about one person, psychological case studies address only a particular pattern of behavior in a particular set of circumstances over a limited period of time.

History

Psychological case studies are of relatively recent origin and have their sources in psychiatry and social work; they have been used as a research method since the early part of the 20th century. These early psychological case studies were modeled on medical methods; that is, they often contained short clinical case vignettes or brief reports on personality description and social relationships.

After World War II, experimental and psychometric approaches became dominant and displaced case study research to clinical psychology and personality studies. Due to this development, the scientific character of case studies has never been explored thoroughly, and case studies are often neglected in textbooks except for some contributions on the specialized single-case experimental method. Therefore, there is no general agreement on the organization, content, or employment of case studies in psychology. Often they are conducted for practical purposes and their theoretical aspects are neglected. Over the past 15 years a major growth of nonexperimental case study research can be observed within ecological psychology, a branch that is studying humans' interactions with their environment.

Methodology

In psychology, several different methodological approaches can be found. The positivist style is interested in developing a generalizable theory or laws from evidence by deductive procedures: that is, studying literature, working out which theories might be adequate, and setting up experiments to gather new data to test the theory.

Researchers who follow a naturalistic approach cannot be sure that existing theories are relevant for the case under investigation as human behavior is unique and specific; thus generalizations are difficult to make. Therefore they prefer an emergent design, that is, creating theories inductively and intending to make sense of the data they found only after they have found them. They are on the lookout for qualitative elements that lie behind more objective evidence, such as how people understand themselves or their setting. They do not ignore objective data—for example, staff turnover—but search for underlying reasons in the process, thus examining people's emotions, perceptions, and experiences of what is going on.

Researchers of both traditions have to be aware of the fact that research investigation is never neutral as there will be effects on individuals or organizations just because there is someone who is asking questions or observing people.

Closely linked to the differentiation between positivist and naturalistic approaches are ideographic and nomothetic traditions within psychology. Researchers who work with case studies often come from an ideographic tradition, that is, their goal is to understand how this very person or event developed the way it did. The goal is not to confirm or expand experiences to form any law about people in general, but to focus on the particular and individual to understand meanings. According to ideographic tradition, nomothetic appendages deal with group averages and not with particular cases, whereby no information about individuals can be drawn from group data. Statistical data tend to suggest there would be a "modal individual," but in fact these data are indeterministic and construct people that in reality do not exist.

Case studies are not only explorative in their nature, they are rather much more realistic than other designs as they are closer to data. They allow reference to similarities between different persons although these persons are dissimilar at first sight, and vice versa. They may also point to factors that would have been neglected in a larger group study or reveal flaws in theoretical conceptions and give hints for how theories may be revised. Their aim is to demonstrate existence, and not incidence, of a particular feature.

Nevertheless, quantitative data, that is, descriptive or summarizing numerical data and inferential statistics such as correlations, may play a role in case study research. Records on seasonal effects, trends, sex, and age differences, for instance, may

be useful supplements as they allow cross-checking with other data and increasing the internal validity of a case study.

It is furthermore important to differentiate between extensive and intensive research designs. The former means specifying all members of a class to define that class; the latter implies indicating the properties something needs to be a member of that class. Intensive designs therefore take one single case, presume certain properties of the class on a trial basis, and try to construct an extension. Psychology most often tends to prefer extensive designs, though they are not suitable for many psychological questions.

Some psychologists work with case studies that aim at establishing case laws (i.e., laws that are each generated for a specific case and then can be combined to formulate a more general law) by analytic induction, a procedure that is well known in sociology. This procedure shows that ideographic procedure and a search for nomothetic laws are not necessarily contradictory, and combinations between them do exist.

First, one has to generate a tentative hypothetical explanation about an interesting phenomenon, then take a single case and test by qualitative or numerical methods (e.g., cluster analysis) as to how far the explanation fits. If necessary, the hypothesis is modified to make it fit the case. The modified explanation is then tested with the next single case and the hypothesis is revised. This process is continued through a number of cases. Cases are thereby not selected based on usual demographic sampling considerations, as the interest is to describe and analyze categories of human behavior or types of persons.

By employing this iterative procedure, the final resulting hypothesis has much stronger explanatory power. It is also possible to search for negative cases to disconfirm one's hypothesis and thus make the proposed hypothesis as critical as possible. A successful hypothesis, then, is true for most of the cases tested, because a final hypothesis that is true of all cases is impossible in practice. The produced explanation is as provisional as every other scientific explanation, independent of the procedure that had been followed.

The result of a single case study is insufficient to confirm a universal hypothesis; it can only reject a hypothesis. However, it does not necessarily falsify the entire universal hypothesis, instead it debilitates the hypothesis that was formulated and examined in the context of specific constraints. A rejection of a hypothesis is not the death of the theory. It indicates, in fact, that additional assumptions are to be made; that is, the failure of the theory may be due to factors other than the theory itself, such as wrong implicit assumptions.

Application

Case studies are found in many different areas of psychology, ranging from clinical psychology to neuropsychology, and from complex problemsolving to cross-cultural psychology. Their use is likewise varied. It may range from case studies being used in a clinical context as analysis of a person's case in the form of a single case analysis or comparative case studies, or as a basis for the development of simulation games in the domain of complex problem solving. People themselves may work on specific case information, or the investigators may analyze the case. The number of cases under analysis may range from intensive study of few cases to less intensive study of many cases.

Case studies are usually used in combination with other methods, such as participant observation or questionnaires, sometimes together with sources that provide quantifiable data (triangulation). Case studies may be used for exploratory reasons, but they also allow for gradual development of a case law as several single cases are written up and considered in relation to each other. They then may provide valid and reliable results that are grounded in data and can be replicated or confirmed by employing further methods. Apart from use in research contexts, they may also be used for teaching and training purposes, such as situational analysis, decision making, theory construction, or simply as illustrations for theoretical explanations.

When developing a case study, multiple forms of evidence should be collected and studied in sufficient detail. Analogous to what the social anthropologist Clifford Geertz said about research into culture, research into any person or organization has to begin with describing in detail what one has found—"thick description"—thereby paying attention to the fine-grained details and pondering them. After getting to know the case in its setting

and reading literature that may be of relevance, one can decide about broad aims and formulate one's research questions. Evidence may come along in the form of documents, records, interviews, detached or nonparticipant observation, participant observation, or physical artifacts. It is considered useful to maintain a research log containing notes on evidence, as well as personal notes such as insights or questions to cope with complexity and to document the process of one's own reasoning.

Critical Summary

Advantages

Psychological case studies contribute several benefits. First, they provide a rich data base and procure process information. The researcher can thereby gain a detailed picture of individual processes and reveal important individual differences between several cases. Using case law methodology and following a bottom-up principle, conclusions from particular cases can be drawn to types of cases. Adding further cases may lead to a deeper understanding of events and refine the conceptual framework until additional cases no longer add new information.

Furthermore, case studies prevent simplifying matters too much. They do not take into account only broad structural or demographic variables but allow for reconstructing the complex causal structure that lies behind an event and that can be examined from an insider's view, that is, the involved persons, as well as from the external point of view of the researcher.

Problems

Some reservations against case studies should also be mentioned. Scientists claim that investigators may distort results in that their descriptions and analyses are not exhaustive but selective and subjective or, as the researcher defines the issue, arbitrary. Furthermore, premature generalizations may occur and circularity may be caused when testing and developing a theory within the same set of data. Apart from that, it is argued that case studies help only in defining a problem and often lack an explication of boundary conditions when hypotheses are examined.

Standards

A well-defined case study should reduce subjective factors to a minimum, for instance by incorporating several independent sources. Besides, evidence and inference are to be separated and reasons for conclusions should be given. Furthermore, investigators should make sure that original data can be reexamined, and should take boundary conditions into account when analyzing a case. Whether one works with case studies or not should not be a matter of ideology but depend on the purpose one pursues. Therefore the question is, when might case studies be used in psychological research and when not. Case studies are rather valuable when researchers are interested in process information. They are also appropriate when hypotheses are investigated that make direct statements about individuals, but not when the hypotheses refer to classes of subjects or fictitious statistical modal individuals. Single case studies may also be beneficial for guiding decisions about which experimental factors could be important for group studies, thus taking on a filtering function.

For instance, when studying complex problem solving by working with computer simulations, group designs are more or less useless as it is difficult to control experimental factors precisely. Different individuals will develop rather different representations of the task; thus investigators have to deal with heterogeneous internal representations that may change over the course of time. In group studies, such process information would be ignored. In this case it would make sense to follow a case law approach, thus studying various single cases and deriving hypotheses about dependencies and determinants of problem-solving processes that then can be implemented in a computer program that generates synthetic behavior. This can subsequently be compared with empirical performance and finally lead to an adaptation of the underlying model in the event of deviation.

Susanne Starke and Stefan Strohschneider

See also Configurative-Ideographic Case Study; Theory-Building With Cases; Triangulation

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CASE STUDY RESEARCH IN PUBLIC POLICY

Case study research in public policy is a qualitative research method that is used to enhance our understanding of the policy-making process. By using case studies, one can learn how public policy is designed and implemented. Public policy case studies provide insight not only into decision-making processes, but also into the political and organizational environments from which public policy emerges. Through the use of public policy case studies, one is able to test case study research data against a range of decision-making theories and models. Public policy case study research can be used as a pedagogical tool as well as a form of applied research.

Conceptual Overview and Discussion

Definitions of public policy usually begin with Thomas Dye's observation that public policy is based upon governments choosing to take action or not to take action. Based upon this definition, public policy is a general concept that can be applied to a wide variety of government activities and behaviors. Public policy is generally associated with the actions of government. Governments have two basic functions—to regulate and to provide programs and services. Regulations emanate from executive and legislative authorities. That authority is legally vested in public agencies or professional bodies. The policy impact of public agencies on our lives is so overwhelming that many citizens simply accept much of that authority as a natural part of their existence. Usually it is not

until things go wrong, such as the recall of tainted food, the discovery of unsafe drinking water, the importation of toys with lead paint, or a deregulation-driven institutional financial crisis, that citizens become aware of and demand immediate action from public authorities. Government regulations extend beyond the domestic sphere into the field of international relations, covering such matters as foreign policy, international financial and security agreements, trade delegations, and multigovernmental organizations.

The provision of public programs and services is largely dependent upon the ability of governments to fund such services. Public programs and services cover such large fields as healthcare, education, social services, labor, justice and policing, national defense and state security, agriculture, fisheries, the environment, immigration, and public works.

Public policy research focuses on trying to observe, as much as possible, what is going on within these large fields. The resultant studies provide rich, often minute detail on the real-world policy actions of public authorities. Those observable actions can take place at the international, national, regional, and local levels of government. Public policy research has grown significantly over a relatively short period of time. The public's thirst for knowledge and a better understanding of the policy-making process has grown in the era of e-government, because of easier access to information and continued demands for greater transparency on how public dollars are spent. Government departments and agencies are also being pressed to state policy priorities clearly and to provide accompanying documentation in order to explain various roles, responsibilities, and organizational accountability in the policy development process.

Public policy and public administration, another major subfield of political science, are concerned with the theory and practice of government. Case study research in public policy is an important analytical tool that can illuminate the actions of various policy actors in attempting to influence the policy-making process. Illuminating policy influencing factors allows for the interplay between formal presentations of public policy decision-making theory and actual practice. Moreover, case study research in public policy attempts to bridge the gap between the academic world of rational-normative approaches as to how public policy

should be made and the imperfect, real world of policy making. The difficulty in developing theoretical explanations for public policy outcomes sometimes arises from the view that government officials often "bill themselves" as avowedly pragmatic when it comes to the policy decision-making process.

Theoretical Models and Perspectives

There is, however, no shortage of prescriptive theoretical models and perspectives that offer analytical and descriptive explanations as to the how and why governments, managers, and public servants act the way they do. Some deterministic theoretical models such as Marxism explore the structural limitations of what policy actors can and cannot do. Dynamic theories such as pluralism and public choice emphasize the open-ended, competitive nature of democratic political systems. Then there are the theoretical models that focus more specifically on individual and group organizational actors in the policy decision-making process. Understanding the basis for what governments will or will not do is at its most difficult stage when academic public policy and public administration writers attempt to provide theoretical explanations for various policy outcomes.

Theoretical models that focus on organizational actors help public policy and public administration researchers understand the complexity of the policy development process from a number of different viewpoints.

There are three theoretical models that commonly appear in the introductory literature on public policy. These models compete with, but are also complementary to, one another. The first model is called rationalism or the rationalcomprehensive model. Rationalism, as the term would imply, is a normative and a descriptive model that speaks to how governments should thoroughly plan and critically analyze each policy decision, in terms of clearly stated objectives, goals, and outcomes. Once decisions are taken, the subsequent program activity associated with the policy decision must be evaluated and analyzed. James R. Anderson developed the "rational" model because of the importance he placed on the need for management to have as much information as possible in order to develop department-wide planning fully, or what we might refer to today as a horizontal approach.

The second model is called incrementalism. Incrementalism is sometimes referred to as the muddling-through approach because of the model's analysis of the conservative nature of government public policy decision making. Charles Lindbloom argues that the incrementalist model most closely approximates the real world of policy making as government policymakers closely follow traditional organizational methods and practices when they address current problems. Any changes to the application of those methods and practices are usually done on an incremental basis. Lindbloom eschews the grand planning exercises associated with the rational model in favor of decision-making processes that are easy to comprehend and implement, as policymakers often do not have the time, the resources, or the kind of information that would be required for more elaborate exercises. A third model, mixed scanning, combines the rational and incrementalist models through the work of Amitai Etzioni. He argued that while public policy-makers will make incremental changes most of the time, fundamental changes will also occur based on a rationalist approach to significant policy challenges. Governments choose the incrementalist or rationalist approach based on policy research obtained through scanning their environment.

Each of the three prescriptive theoretical models of decision making seems quite plausible, and advocates will strongly expound the respective theoretical merits of their model based upon case studies.

Application

A typical public policy case study is composed of an abstract, a case introduction, case instructions of what kind of action is required of the participants, accompanying documentation, and some possible options for consideration. Through interaction with a public policy case study, learners are able to explore different competing viewpoints, develop their own decision-making process, and explore the potential consequences of their decisions. They also learn that no policy decision is perfect, given the atmosphere from which public policy develops. Public policy case studies do have an advantage, based upon the political nature of the subject matter, of being able to tell a good story. Eliciting interest on the part of the learner is an important aspect of any pedagogical tool.

Case study research in public policy has become an important learning tool in graduate programs in public policy, public health, public administration, and business administration. The cases are used to provide learners with an understanding of the public policy process in terms of how government creates, develops, and implements public policy. The Kennedy School of Government, Harvard University, is, according to its Web site, the world's largest producer and repository of case studies designed for teaching how government works, how public policy is made, and how non-profit organizations operate. A wide range of case study topics is grouped alphabetically under a range of categories.

The Institute of Public Administration of Canada (IPAC) has a case program in public administration that has produced 160 cases in a variety of areas. IPAC case studies are developed by public servants, academics, and students in order to provide insight into the public policy decision-making process. Case topic areas include administrative ethics, financial prioritizing, health-related policy decisions, what to include in important communications documents, labor relations issues, managing environmental disasters, intergovernmental negotiations, dealing with scandals, workplace discrimination, and how senior public servants deal with an ongoing issue.

Perhaps the most famous case study in public policy is Essence of Decision: Explaining the Cuban Missile Crisis by Graham T. Allison. According to Robert Yin, this formative single case study of policy decision making functions as both an explanatory case study and a descriptive case study. The case study focuses on crisis management decision making at the executive government level, with participants looking to advance the interests of their own organizational units. The policy decisions that were ultimately taken substantiate Allison's famous dictum that where you stand may largely depend upon where you sit. By examining the motivations of various policymakers, analytical insight was developed into how and why certain decisions were taken by the White House. An atmosphere of crisis management existed at that

time because precipitous action might have led to a nuclear confrontation between the United States and the Soviet Union. After a detailed exploration of the policy decision-making process, Allison put forth and analyzed the "rational actor," "organizational process," and "governmental politics" theories as possible explanatory models for the strategic decisions that were taken by both sides in the period leading up to and including the Cuban missile crisis. The descriptive and explanatory power of Allison's case study has led to continuous debate regarding the lessons and theoretical models associated with the single case study. Yin points out that the explanatory power of that case study has caused researchers to generalize beyond the political case narrative into a wide range of government policy activities. A second, coauthored edition of the case study was released in 1999. This edition took declassified government documents and recordings into account as well as updated interviews with the then-current senior public officials. The result was that some theoretical positions were substantiated because of the new materials while other theoretical positions were put into question.

Designing case study research in public policy involves planning, conceptualization, analysis, and communication. According to Ann Majchrzak, some of the most important activities in the policy research process will occur during the initial planning period. In order to focus on a potential public policy topic, a researcher needs to build up a level of knowledge so that the feasibility of a potential study can be determined and the purpose of such a study can be established. A comprehensive literature review will allow the researcher to build up that level of knowledge. From there, a set of initial research questions based upon a tentative theory or model can be developed. Case selection follows. Will a single case or multiple cases be chosen? There is certainly no shortage of potential public policy cases to choose from. The selection of the case study should be based on the purpose of the study. That brings us to the data collection stage. While the case study is a qualitative research method, quantitative data can be an important component of the case.

A number of methodological collection tools are used for data gathering purposes. Public policy case studies are built on documentation and different levels of government, national and international

nongovernmental organizations, policy networks, think tanks, interest groups, university research centers, and political parties provide a wealth of information that is waiting to be mined. Making decisions about what to study in connection with the policy topic is important because it is easy to become overwhelmed by the amount of data that is available. Existing public opinion survey results can provide some quantitative data, even if these are in the form of quasi-statistics. Perhaps the most interesting data collection tool in public policy case research is interviews with key informants. The key informants may be leading policymakers who could provide valuable background information leading up to a policy decision. They could also be the public servants who have been charged with implementing the policy. Or they could be managers who are trying to develop the policy while feeling the pressure coming from the top and the bottom of the organization. Relevant stakeholders, such as program recipients, may also provide valuable data. Some of the initial interviews may not be for direct attribution purposes but rather to allow researchers to gather background information from informants, who can be quite candid if they do not have to go "on the record."

Developing different perspectives from various sources for a public policy case study is a key to understanding the complexity of the policy process and why public policy emerges in a particular way. Gaining access to key informants may require considerable lead time and that is why the initial planning aspects leading to the choice of the policy topic and case selection cannot be underestimated.

Once the data have been collected, databases can be developed in order to sort through the material for analysis. Case study analysis in public policy typically involves using quantitative data as support for the qualitative data, which allows the researcher to drill down in order to derive meaning from a number of the relationships that underpin policy, from which public policy emerges. Once the analysis is complete, the case study narrative can be developed in concert with the data.

Critical Summary

Public policy case studies provide the reader with a detailed description of a situation that requires a decision or sets of decisions from policy actors. The decision or set of decisions is then analyzed to identify the constraints, approaches, and techniques that are part of the policy decision-making process. The roles of the policy actors are also explored in detail. There is often, however, considerable debate over the legitimacy of theoretical models that have been developed on the basis of the cases studies. The legitimacy of public policy theoretical models is sometimes called into question because of the ideological perspectives that underpin case study design. Such ideological perspectives are to be expected, however, because public policy emerges from government and politics, and that is what makes public policy research so interesting to many researchers.

Andrew Molloy

See also Governmentality; Institutional Theory, Old and New; Organizational Culture; Program Evaluation and Case Study; Theory-Building With Cases

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CASE STUDY RESEARCH IN TOURISM

A multidisciplinary field in social sciences, tourism research, has formed a unique intellectual community for the practicing of case studies. Case study research in tourism involves empirical investigations of what Robert Yin called a contemporary phenomenon within its real-life occurrences, in which the boundaries between the phenomenon and its context are not clearly evident and where multiple sources of evidence are required to explore, describe, or explain the real-life situation. The use of case studies, the developmental nature of this method, and its epistemic position in tourism research are reflected through critical appraisals of this approach in the ever-expanding body of tourism knowledge.

Conceptual Overview and Discussion

As in other social sciences fields, case studies in tourism have mistakenly been regarded as a weak approach to the generation of social scientific knowledge; that tourism knowledge has been generally characterized by case studies, area-specific discussions, best practice examples, and one-off or one-time research. Consequently, tourism research is perceived as stale, tired, repetitive, and lifeless. The trouble with its theoretical state of the art is attributed to the fact that its researchers keep producing an enormous record of case studies in response to the staggering expansion and variation of the tourism industries. Reflections on its methodological state of the art suggest that tourism researchers turn to alternative or innovative strategies rather than continue to produce more and more case studies of limited scientific value. These perceptions of case studies as atheoretical, areaspecific, one-time, and not following methodological procedures, which were historically well-entrenched in a number of social science disciplines, are extended to the relatively new multidisciplinary community of tourism research.

Nonetheless, case studies have long been a topic of interest in the methodological literature. In a critique on the sustained interest in this method, Jennifer Platt suggested that case study as a research strategy has grown out of the methodological traditions of both qualitative and quantitative inquiries such as the grounded theory and the logic of experimental designs. Robert Stake referred to its vantage as the study of the particular, which encompasses the nature, historical backgrounds, physical settings, as well as sociocultural contexts of a specific case. Jean Hartley succinctly noted that case studies allow for processual, contextual, and longitudinal

analyses of various actions and meanings in organizational research. In a critical reflection of its use in social sciences research, Randy Stoecker stated that the case study approach has been wrongly maligned as it is the best way to refine general theories and apply effective interventions in complex situations.

In terms of research design, Harry Eckstein categorized the variations of this approach into configurative-idiographic studies, disciplined-configurative studies, heuristic case studies, plausibility probes, and crucial-case studies. Robert Yin, on the other hand, used a refined typology of exploratory, descriptive, and explanatory case studies, to be developed in the maximization of construct validity, internal and external validity, and reliability. Each of these typologies is seen as an effective tool in contexts or situations that are often too complex for experimental or quasi-experimental designs. In addition, case study is differentiated from history or historiography in that the latter involves special ways of verifying documents and artifacts in dealing with noncontemporary events when techniques such as participant observations, direct measurements, or interviews cannot be used as corroboratory evidence.

With respect to implementation, data analysis, and theory building, methodologists have outlined a series of procedures that can be employed in a variety of contexts. These include tasks such as the training or skill preparation of investigators, the development of protocols, the conduct of pilot case studies, and the actual implementation of a case study research plan. Such steps are suggested in order for case study data collection, usually from multiple sources and by various means, to triangulate on the "fact" or the set of prespecified research questions.

In data analysis, Yin proposed strategies such as relying on theoretical propositions, setting up frameworks based on rival explanations, and developing case study descriptions, for the construction of theories. In a state-of-the-art account of building theories from case study research, Eisenhardt developed a systematic process with a series of steps to watch for while doing analysis. The opportunity to explore issues in depth and in their contexts means that theory development can occur through the systematic piecing together of detailed evidence to generate (or perhaps replicate)

theories of general interest. Eisenhardt summarized the strengths of this approach in terms of its likelihood in generating novel theories, its testability of emergent theories or hypotheses, and its likelihood of empirical validation of resultant theories.

With the increase of interest in, and consequently an increase of literature on, case study methodology, stereotypical perceptions have been changing over the years. In light of an ascending incorporation of ontological and epistemic considerations in its design logic, Jacques Hamel concluded this approach embodies undoubted theoretical and methodological qualities. The thick description characteristic of case studies allows for a move from one epistemic form to another. In this sense, Hamel alluded to the case study method as a cornerstone of new theoretical and methodological strategies for sociology. As a result of its widespread use, methodological appraisals on its applications can be found in a variety of social sciences fields, including tourism research.

Application

Case study is a widely used strategy in tourism research. Honggen Xiao and Stephen Smith, in a content analysis of case studies published in tourism journals, alluded to the methodological state of the art of this approach in the tourism field, which can be summarized from a number of perspectives. First, in terms of thematic or topical coverage, case studies in tourism research are used in contexts or situations as diverse as planning and development, community perceptions of tourism impacts, alternative forms of tourist experience, decision-/policy making, career development and professional training, destination marketing and image, segmentation and tourist markets, cultural and heritage tourism, host-guest relationships, organizational operations and dynamics, service provisions and service industry management, and festivals and events.

This method is also found in designs to fulfill case-/place-specific purposes in terms of a study's stated objectives or research questions, which are directly related to a site, organization, or locality under scrutiny. Site-/place-specificities of a tourism case study are sometimes attributable to factors such as the nature of research, its funding bodies, and the varying degree of elaborations characterized by different authors or for different purposes.

Second, authorship attributes suggest that case studies in tourism are conducted by a multidisciplinary team of researchers from a variety of departments/faculties such as tourism, hospitality or hotel management, recreation and leisure studies, economics, business, marketing and management, geography and environmental studies, sociology and anthropology, education, information technology, and public administration. Moreover, case studies in tourism often appeared as coauthored or joint research, which could be a reflection of the extensive time or prolonged efforts needed for conducting such inquiries.

Third, with respect to geographical scales, time points of observations (or time specificity), and the number of cases used in the research design, case studies in tourism often fall into either a small or a large geographical scale; for example, an attraction site or a destination country. Tourism organizations or agencies, hotel chains, airlines, and tour operators are also frequently used as case study sites; in such instances, the coverage and diversity of their businesses often add to the complication for the implementation and data collection of a case study. Due to the centrality of space and place in tourism, case studies in this field typically tend to have a geographical focus.

In terms of the time points researchers use for data collection, case studies in tourism are found to have frequently adopted one-time or cross-sectional approaches. A small number of instances can be regarded as longitudinal in their utilization of two or multiple time points for observation or data collection. The frequent use of one time point in data collection is attributable to any of a number of reasons prevalent in the tourism research community, including budget constraints, report deadlines, or the researcher's choice of paradigms as in the case of an ethnographer's need for a prolonged engagement with a study site versus a quicker, one-time survey. Although some undertakings adopted two/comparative or multiple-case designs, most case studies in tourism follow a single-case design.

Fourth, in terms of data collection, triangulation through multiple sources of evidence is often seen in tourism case studies. Specifically, secondary data (e.g., archival/statistical documents, government reports, and news articles) and surveys were used most often, followed by interviews and focus

groups. Participant or on-site observations were less frequently seen in tourism case studies. By virtue of the estimated length devoted to the description of method and data collection, a majority of tourism case studies bore a limited-to-moderate description of methodological procedures.

In terms of analysis and presentation, about half of these case studies were quantitative reports with statistical tables, figures, and occasionally econometric equations or formulas. About one third of such reports are distinctly qualitative, which is often characterized by thick descriptions, historical accounts, or ethnographic narratives, with information-rich texts or extensive quotes from key informant interviews. About one out of 10 case studies used a mixed approach in the report writing. Similarly, by virtue of the length used for the discussions of research findings, the case study approach, seen from this content analysis of tourism journals, has moderate-to-high potential for contributing to knowledge or in generalization in the contexts of literature.

Critical Summary

Case studies have been used to address a variety of subjects and issues and have contributed to the theoretical and methodological state of the art of tourism research and scholarship. As noted earlier in this review discussion, this approach has been stereotypically perceived as atheoretical in tourism research. Such a perception or assumption has to do with what is meant by theory in tourism studies. From the standpoint of classical economics, the term theory usually connotes a set of principles, based on empirical evidence, that provide reliable, consistent, and verifiable predictions about the functioning of a system or phenomenon. In such a context, theory is not simply a model or a set of hypotheses, it is the formal articulation of cause-and-effect relationships that have been verified repeatedly, and that reveal insights into how the system or phenomenon actually functions. From such a strictly positivist perspective, one might argue that the term theory is often used inconsistently in young multidisciplinary fields such as tourism, and recreation and leisure studies, and that despite frequent debates on theoretical advancements, there is not much theory in these fields.

In contrast, in the evaluation of theoretical advances of tourism research from an interpretive perspective, theory can also be seen as a conceptual framework for understanding, explaining, and describing social phenomena, in which a theoretical advance is taken to mean the synthetic outcome of a dialectical exchange of ideas. As Edward Bruner noted, "social theory both reflects and is constitutive of changes in the world. It does not regard earlier work as totally discontinuous with the present or as fatally compromised politically, or as subversive of truth. It charts where we were and where we are going" (p. 462). It would therefore be simplistic and misleading to judge a prior study according to whether its theoretical status is still as valid today as when it was initially articulated, as in the case of Dean MacCannell's The Tourist or John Urry's The Tourist Gaze, both of which are ethnographic case studies of Paris in the 1960s and 1970s and of the United Kingdom in the 1980s, respectively.

In light of the methodological process for the generation of theories, future assessments of tourism case studies in theory building should depend as much on their concepts, frameworks, and propositions emerging from a research process, as on their empirical or implementational issues such as the strength of the method or the evidence grounding the theory. On these observations, case study research in tourism is as rigorous and systematic as other methods.

Honggen Xiao

See also Case Study and Theoretical Science; Contextualization; Descriptive Case Study

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CASE STUDY SURVEYS

Case study survey research is a research design in which a survey is administered to a case, either a small sample or an entire population of individuals, to describe an aspect or characteristic of that population. Researchers ask individuals in the population questions to examine individual self-reports of opinions, behaviors, abilities, beliefs, or knowledge. The responses are analyzed to describe population trends or to test questions or hypothesis.

Conceptual Overview and Discussion

The purpose of case study survey research is to identify characteristics of a population by asking a number of questions of individuals in that population related to an issue. The population as a whole is generally not studied, although survey research does allow for collection of data from a larger number of people than is generally possible. Usually, a carefully selected sample is surveyed. The survey

is used to examine individual characteristics to find and describe trends in the population with a focus on learning about the population.

Case study survey research does not involve an experimental manipulation of conditions. It cannot be used to explain cause and effect and cannot be used to determine causal relationships with any degree of certainty. It yields a normative description of how the sample has distributed itself on a question and the response alternatives for every questionnaire item. It can be used to explore a variety of relationships, and can also be used to explore relationships between two or more variables. However, validity of the information gathered is contingent on individuals' honesty and willingness to participate.

Application

There are several types of designs that can be used in case study survey research. The first is a simple descriptive design. This is a one-time-only survey that is used to describe the characteristics of a sample case at one point in time. The second type is a cross-sectional survey design where the researcher collects information from a population or several populations at one point in time. The third survey research design is longitudinal. Longitudinal designs follow the same or very similar populations over a period of time or at different points in time. They include trend studies that examine different samples from a population surveyed at different points in time, cohort studies where a specific population is followed over a period of time, and panel studies that survey the same individuals at each subsequent data collection point. Unfortunately, panel studies may suffer from a loss of subjects over time, leaving a smaller sample with possible bias.

Case study survey research design makes use of several tools to obtain standardized information from all individuals in the sample. Questionnaires or interview guides are the most common instruments used to collect data. The questions asked in the questionnaires and interviews may be either closed form where only certain responses are allowed, or open form where the subjects respond as they wish. The form used is determined by the objective of the question and the nature of the response desired.

A questionnaire is a form with questions that the individual completes and returns to the researcher. The individual chooses or completes answers to questions and provides basic personal or demographic information. The questionnaire may be mailed or online. Questionnaires that are mailed tend to have lower response rates than other survey tools, and there is no opportunity for the researcher to probe or question answers. However, they offer the greatest anonymity to individuals who are responding. Online questionnaires are considerably less expensive than mailed surveys, and offer the advantage of being convenient to complete and return.

An interview survey makes use of a form on which the researcher records answers supplied by the participant. The researcher asks questions from an interview guide and records responses. Interviews involve direct interaction between the individual and the researcher and provide a rich source of information. Unfortunately, they may allow subjectivity and possible bias from many sources. The interview guide can be structured with a series of set questions, semistructured with set questions and probes that are more open ended, and unstructured where the researcher has a general plan to follow, but no set questions. Interviews may be conducted as one-on-one in personal interviews, focus group interviews, telephone interviews, or electronic interviews.

Phone interviews may result in higher response rate than mail surveys. They can be more costly and time consuming than mail, but may be less expensive than face to face interviews. In telephone interviews, researchers have the opportunity to probe for additional information, but there is no opportunity for the researcher to observe body language or surroundings. The personal interview is the most costly approach, but offers an opportunity for the researcher to build trust with the individual and a setting in which the researcher can probe for further information and understanding. Computer technologies offer an alternative for interviewing that is less expensive and may be more convenient for both the researcher and the individual responding. The researcher can probe answers to questions but has no opportunity to observe the individual.

No response and item nonresponse are serious concerns in case study survey research. When

individuals participating in the research fail to complete all of the items in the survey, item nonresponse occurs. Individuals may not know the answer, may be pressed for time, may skip over questions, or may fail to record an answer. The number of nonresponses varies according to the natures of the questions asked and the mode of data collection. These item nonresponses result on gaps in the results.

Nonresponse is an important issue in survey research that occurs when individuals in the sample population do not respond to the survey. There are many reasons for not responding, including lack of interest, forgetfulness, and unwillingness to participate. Unfortunately, this can result in data bias and is a serious difficulty. Evaluation of the results should include consideration of the nonresponse rates.

Case study research data can be found in many areas. The Gallup Poll may be the best-known survey used to sample public opinion in a population. The general public may also be familiar with market surveys researchers use to evaluate product satisfaction or political polls that provide data on public support of political figures or policies. A review of the literature reveals a plethora of case study survey research. For example: Survey research has been used in medicine to examine patient, nurse, and doctor perceptions and experiences. It has also been used to sample drug, alcohol, and nicotine use; sexual activity; exercise participation; eating patterns; sport activity; and a variety of other health behaviors. In education, surveys have been used in program evaluation, and to examine teacher, student, and parent perspectives. Survey research has been used to measure community needs as they relate to programs, courses, facilities, projects, or community involvement. Electronic surveys such as computer-assisted telephone interviewing (CATI), voice recognition (VR), and touchtone data entry (TDE) questionnaires have been used to examine public attitudes and awareness around different issues and even consumer preferences and behaviors.

Critical Summary

Case study survey research is a research design in which the researcher samples a population and uses questionnaires or interviews to ask questions related to a topic or issue to develop conclusions regarding trends in the population. This type of research design is very useful, as it provides the researcher with the ability to sample a large number of people within a case quickly and economically. It also allows the researcher to sample individuals not located in close proximity to the researcher. Information can be gathered at one point in time, or over a period of time. However, survey data are self-reported information, reflecting only what individuals think, or think they should report, at that particular point in time.

Linda Chmiliar

See also Interviews; Longitudinal Research; Questionnaires; Sampling

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CASE STUDY WITH THE ELDERLY

Case studies of the elderly examine, describe, and at least implicitly advise on the governance of the quality of life and the health of the elderly, who often are chronically ill. These case studies are mostly undertaken by researchers in nursing studies and gerontology. The elderly are typically older than 75 years, but multiple body system affliction and psychosocial isolation are key differentiators. Several levels of care are usually required. Incontinency, diabetes, memory loss, depression, difficulties in motility, and the results of heart attack and/or stroke are often involved. Medical (hospital/nursing home) and/or community-based (home care) regimes of care are concerned.

The case studies typically involve the elderly, their bodies, social contexts, sensemaking, families, professionals, and the insurers. To be "elderly" has a complex and contested intersubjective meaning. The lived-body exists in a world full of textures, resonances, tones, relationships, and circumstances. Case study research chooses among a vast array of bodily informed possibilities of observation, reflection, and analysis to provide insight into the elderly as person, small group, subcategory, and/or element of organization. The term *elderly* is politically and theoretically laden.

Conceptual Overview and Application

Ageism or the wholesale discrimination against the elderly dominates in advanced industrialized countries. Being elderly is mostly stigmatized—it is characterized as being "past it," "giving up," and "being a burden." For some, old age is identified with unattractiveness, dependence, loss, and decline. For others, the elderly are viewed as a "problem" because they are "not productive" and form a "welfare burden" that gets ever larger. In response to such negative stereotypes, some elderly persons may claim to be "active," "purposeful," and to make a positive social contribution. They may internalize and then deny negative stereotyping. Many elderly buy into the paradoxical antiaging "dream" by acting fit, dressing fashionably, and traveling extensively. Acting is used here in Erving Goffman's sense of performing a social position that is normatively or ethically laden. The "young-old" (i.e., the elderly with a youthful "lifestyle") or "not-old" (i.e., the elderly who actively oppose being seen as "old") try to deny aging. Their (life-)stories lead to case studies about "positive aging" and "proactive lifestyles."

Some elderly embrace interdependence and reciprocity and fight for a more inclusive society. Case studies about them stress caring about others. Directly experienced community is their key norm. Their self is constructed around immediate relationships and personal commitments. In a postmodern culture of rootlessness, hyperreality, and impermanence, the emphasis on socially committed togetherness and the celebration of community and closely knit relationships is exceptional. For this group, neighborhood is a key value.

Case studies of the elderly are framed in an opposition between naturalism and normativism.

Naturalism accepts physical deterioration with age as inevitable and understands chronic illness to be independent of individual or social values. Disease is a natural phenomenon entailing diminished functional ability. The aged who are in principle chronically ill are simply "diminished" or "lessened" in their abilities. Their condition just is a biological fact. "Agedness" rests thus supposedly on a valueneutral core, though there are economic or political choices or values involved in the choices of care responses. From this point of view, on the one hand, there are the value-neutral facts of medicine understood as a science. And on the other hand, there is the value-laden world of political or economic choice. Proponents of naturalism argue that the two can and must be radically divided.

Normativism does not accept the naturalist take on aging. Normativism argues that every norm (e.g., "healthy") is value laden and has to be examined in its ethico-social context. "Diminished in abilities" makes sense only in accordance to a norm—which abilities are diminished, when and why? Are "abilities" defined in terms of physical labor, wisdom, or something else, and why? Normativism focuses on the ability to perform intentional actions and achieve goals, while naturalism focuses on biological factors often understood in statistical terms.

Case studies of the elderly tend to embrace normativism. If health, as in naturalism, amounts to preserving the organic functional ability to make species-typical contributions to survival and reproduction, then health can be objectively and statistically determined—that is, subjects' perceptions or awareness are not relevant. But if a normative evaluation of the person's body and mind is a necessary element in the care of the elderly, then case studies are necessary. "Being elderly" can have to do with pain, suffering, and disability—that is, to the experienced inability to act and to do or achieve things as one wishes and/or one expects to be able to do. It then includes: sensory impairment; problematic mobility and falls; age-related changes in memory; depression, stress, and coping; dementia; long-term healthcare and its rationing. But "being elderly" can also focus on those who are not in pain, suffering, or disabled. Case studies of the elderly can study well-being, fitness, and the positive manifestations of emotional and sexual expression in later life. Expectation and intentionality are crucial. Aging and illness experiences are understood here to be normative and are studied as such.

Case studies of the elderly can clarify who makes which (health)care decisions and how. Obviously the client must play a role, but also the client's loved ones, as well as the healthcare specialists and various representatives of the socioeconomic powers. Care is organized along a dual power structure, with medical care mainly following the naturalist biostatistical line. Doctors tend to treat disease and follow evidence-based medicine. They may minimize issues about what the patient actually feels or experiences. Illness and disease, health and care, can all be considered socially constructed, comprising social-economic and cultural values. Although advocates of naturalism believe that choosing "survival" as the key norm for healthcare is value neutral, opponents disagree. For opponents, choosing survival displays links to social Darwinism, a viewpoint mirroring (neoliberal or hypercapitalist) economic competition and political assumptions. The critical structuralists point out that the "primacy of the self" that is assumed as of paramount value by the humanist concept of survival is a sociohistorical construct that can be criticized as so many justifications of the social regime of private property.

Normativism precommits case studies to humanist values by taking the bodily, social, and contextual experiences of the elderly into account. The integrity and dignity of the elderly are normativism's key dual values, embodying respect for autonomy. The negative term *ageism* describes disrespect and discrimination against the elderly. In terms of care, the positive value is *person centered*. Dignity and integrity, in the care of the elderly, entail doing justice to their quality of being human. Concretely this includes (a) an adequate means of existence, (b) freedom from intense continual pain, (c) a minimum of liberty, and (d) the practice of deference that honors basic self-respect. For the elderly, these are not self-evident matters.

Some elderly are totally dependent, in pain, not permitted social choices, and exposed to care that negates their self-worth. Often, the efficiency of washing or grooming, dressing, and feeding is maximized and the dignity of the cared-for is ignored. For those whose lives have embodied moral maturity and high standards of action, losing

all contact with their moral identity is enormously damaging. Often the cared-for are treated as if they have no moral will or relevant ability to judge circumstances. The dignity of personal identity is endangered. Nakedness, inconstancy, and memory loss, for instance, form for many a continual danger of shame and embarrassment. Respect for the dignity of the elderly may sound very abstract, but appropriate case studies have demonstrated that it is really quite concrete.

Ingrid Randers and Anne-Catherine Mattiasson describe, for instance, the treatment of an elderly woman in a wheelchair. The woman feels humiliated when a young caregiver tells her that she must go to bed at 8 p.m.; she is in a wheelchair but is perfectly capable of making her own choices. A caregiver sees her near midnight, sitting alone staring out a window, having retreated into her own melancholy. The caregiver questions her, reassures her that she is understood, that no one is angry, and brings her to bed, promising to check on her regularly during the night.

Integrity and dignity entail respect for the (a) corporal, (b) psychological, (c) informational, and (d) cultural self. Integrity means being respected, being treated with dignity, and not being physically or psychologically harmed. Dependency increases the chances that integrity is violated. Case studies are used to examine whether the privacy of belongings, space, and body have been violated. Examination of the elderly's lifeworld include descriptions of bodily presence (embodiment), examination of temporalization (how one lives in past, present, and future), attention to mood (emotional attunement), research into spatiality (sense of place), and sensitivity to the quality of interpersonal relations (intersubjectivity); other themes include: the sense of selfhood, having goals (convictions, sense of purpose), and uses of discourse (communication).

These lifeworld criteria are used to examine the elderly phenomenologically. While the categories are rich and broad in scope, the methods of applying them are controversial. If handled poorly, lifeworld analysis becomes mere researcher projection. In the data collection, the other must be heard, responded to, and valued. Relationship building requires self-awareness, reflexivity, and attention to values. Especially because the elderly, for whatever reasons, may find it difficult to speak out for

themselves or to assert their own perspective(s), case studies are often the most person-centered research possible.

Normativists stress the need to feel connected and close to others. In the 1960s the elderly were prized, for instance, by Bertrand Russell in New Hopes for a Changing World and Erik Erikson in Childhood and Society, for displaying stoic wisdom and distance from the hypes of daily concerns. Today an active concern with life in the face of death is often seen to be characteristic of integrity, while postmodern frantic consumerism and depression, as described by Jean Baudrillard, are thought to be all too common. Integrity is thought to have to do with life as something necessary, whole, and meaningful. The person-centered focus emphasizes *Gemeinschaft*, the shared quality of life, and communitarian wellbeing. The valuing of interdependence, recognition, respect, and trust are highlighted.

Critical Summary

Case study research of the elderly is profoundly normative. Responsibility for "care for the self" during the last few years of life is at issue. The processes of letting die and/or making live are at stake. Governments in Europe and the United States started in the 1970s to abandon the elderly, claiming that responsibility for the elderly was too expensive for the collectivity. Thus the elderly have been redefined as individuals, responsible for their own autonomy and (self-)care. Morbidity, mortality, vitality, and longevity have been privatized and individualized. Institutional (hospital or nursing home) care has been replaced as much as possible by care at home. Doctors and other highly trained professionals have largely been replaced by lesstrained nurses or by volunteers.

The care regime considered desirable, legitimate, and/or efficacious varies enormously depending upon one's "politics of life itself." Case studies of the elderly originate with the interventionists who in the name of life and health, humanism, and social justice, believe that an active biopolitics is justified and desirable, and who are committed to defending the quality of life of the elderly.

Hugo Letiche

See also Ethics; Phenomenology; Poststructuralism; Sensemaking

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CASE-TO-CASE SYNTHESIS

Case-to-case synthesis is one of several secondary analysis techniques that can improve the influence and usefulness of both qualitative and quantitative case study research results. Such syntheses also hold promise for addressing policy issues at the national level as they build understanding across several instances within a problem space, thus generating knowledge with broader applicability.

Other secondary analysis techniques appropriate for case studies are research reviews, secondary re-analyses, and metasyntheses. Research reviews are critical summaries and interpretations of the available research literature on a specific topic. As such, they are similar to literature reviews that focus on the theoretical framing of the study, the design, methods, analysis techniques, and/or findings of several studies. Secondary re-analyses are conducted when researchers have access to original data produced with a similar research focus, agenda, and data collection methods across unique settings, informants, or contexts. Secondary analyses, or reanalyses, of data using an improved lens or interpretive framework can generate new insights and contribute to knowledge in the problem space. Metasyntheses focus on theory building using the assumptions and techniques of grounded theory methodology through which the data, methods, findings, and theoretical frameworks of independent studies are examined with the goal of generating a synthesis of results across the collection of studies.

The focus of this entry, case-to-case synthesis, involves the in-depth examination of a collection of case studies—albeit ones with a common focus, method, or outcomes. The cases could be instances in a multi-site case study or could be case studies conducted independently. Multi-site case studies are typically designed to be intentionally integrated, whereas independently conducted studies are not. In the latter instance, the synthesis is intended to build integrative understanding of the problem space studied in the independent case studies. Researchers can explore several instances of a common or similar phenomenon, event, or population and can consider the combined cases as the collective case.

Because synthesis is fundamentally interpretive, different researchers may well focus on different aspects of the cases, reflect on and integrate those accounts into their own experiences, and render different syntheses. This is similar to what we would expect from two different integrative research reviews of the same corpus of studies. Because researchers bring different conceptual lenses to the task, two reviews of the same body of

research would likely be organized differently, emphasize different elements of the studies, and draw different conclusions. In fact, this value-added interpretation is what makes intriguing research reviews—and syntheses of case studies—interesting and scholarly. It raises the resultant work above the mere recitation of previous studies—impoverished, annotated bibliographies—so soundly critiqued.

Conceptual Overview and Discussion

Case studies vary in design and can involve gathering qualitative and quantitative information from a single intact group or one- and two-group pretest–posttest designs. The strength of case studies lies in their in-depth explorations of bounded systems over time that respect situated factors and position the target constructs in authentic contexts. This very strength, however, can limit application of the results. End users may judge the bounded system as too idiosyncratic for their problems, situations, and constituents. Nevertheless, synthesizing across cases holds promise for building knowledge that is more generally useful and can inform policy, programs, and practice.

For example, case studies have a rich history in law and medicine and growing application in healthcare, the social sciences, and education. Reviews of individual court cases and judicial decisions have served as the basis for procedures and standards regarding legal issues—case law—while individual case results in medicine have been integrated to standardize treatments and to generate hypotheses about specific diseases and illnesses. Similar trends can be found in healthcare and social welfare but are not as apparent in education. This concern and the lack of education research's impact on policymakers and decision makers has become an important issue in the education research community.

In multi-site case studies, researchers deliberately design a study to describe and analyze the phenomenon of interest in several instances. This intentionality drives the research design by utilizing common questions, procedures, data sources, propositions, and analyses across several bounded systems. The analysis, in turn, leads to assertions that apply to each individual case and to the collective case that more fully represent the entire problem

space. The use of such anchors as similar problems, questions, data collection, and interpretive frames produces results that facilitate generalizability to other, slightly different, bounded systems.

A similar approach can be applied to a research agenda that involves serial studies of a problem space over time. Each case study may be conducted independently and sequentially, but they all address a common problem with similar research questions, designs, data collection, and data interpretation—even though implemented in different settings with somewhat different content or participants, or both. In this approach, data from several case studies can be re-analyzed as a collective dataset or the results can be synthesized across the mosaic of the case studies.

The literature describes two central analytic strategies for case-to-case comparisons leading to synthesis—case-oriented and variable-oriented approaches—as well as a mixed approach. In the case-oriented approach, one case is analyzed and a grounded theory or working explanation is developed. This working explanation is then applied to subsequent cases to test the robustness of the explanation. In the variable-oriented approach, particular themes are identified and compared across cases. The complexity of specific cases is downplayed to highlight the thematic analysis. While this may be a disadvantage, it can be overcome by relying on mixed approaches where some balance is struck between the full comparative analysis of cases and the discrete, more focused analysis of variables or themes.

It is important to note that findings from studies, even those involving randomly selected samples, are not strictly generalizable to other populations. While this logical error is frequently made in research reports, the logic and assumptions of random sampling and statistical inference do not permit the seamless application, or generalization, of results from the original study to a new, presumably different population. However, the use of analogy and compare-contrast reasoning allows potential users of research results to determine for themselves if a study's results will be useful to their specific problem, situation, and constituents. This is a more inclusive, stipulative definition of generalizing—one that encourages and values syntheses across studies but relies on a different logic than that of probabilities.

Synthesis—the process of integrating parts to form a whole—suggests that the outcome is more complex than a mere aggregation of component parts. The process is more closely related to inferring and drawing conclusions than to probabilistic generalizing. However, where generalizing statements integrate salient elements, conditions, and explanations, applications to other instances are presumed. Such applicability is one criterion for judging the value of the synthesis. The logical processes of syntheses are inductive, analogical, and interpretive.

Application

A few examples of multiple case studies and caseto-case synthesis can be found in the intersection of literacy and science education research focusing on science literacy for all. The brief summaries of these examples illustrate the procedures outlined above and their application to short-term studies and a long-term research program.

Teacher's Beliefs

An example of a case-to-case synthesis comes from the work of Deborah Dillon, David O'Brien, Elizabeth Moje, and Roger Stewart, who found that previous research on language, literacy, and science education had considered several elements: classroom questioning techniques, verbal interactions, quality of texts, readers, and reading-tolearn science. They further established, however, that research had not addressed aspects of the problem space dealing with the interaction of teachers' beliefs about teaching, their understanding of science content, and their uses of literacy events in secondary science classrooms; also, previous research had not sufficiently addressed how teachers selected, structured, and implemented literacy events. Based on their assessment of the problem space and its development, these researchers decided to use the methodologies of symbolic interactionism and ethnography to explore three cases of secondary science teachers' beliefs, instructional decisions, and implementation of literacy events. Their design was intended to produce findings that could be applicable across more than a single setting; they designed a stepwise, case-tocase analysis.

They conducted yearlong case studies of three teachers teaching students in their science classrooms. Common data sources (field notes, videotaped and audiotaped lessons, interviews, student work samples, study guides, laboratory sheets, lesson plans) focused on each teacher's teaching philosophy and knowledge of science content, how these influenced the selection of literacy events, and how these events were organized and delivered. The data were analyzed stepwise as the inquiry progressed using constant comparison; emerging patterns and categories were supported, negated, elaborated, or refined as additional information was collected and interpreted.

Results for each case study were developed, and common trends across the three cases were synthesized and reported. The researchers looked for similar and different patterns across the data analyses and specifically focused on teaching philosophies and literacy practices. Their synthesis suggested that these teachers attempted to support student learning based on distinctly different philosophies about science teaching, instructional organization, and definition of science literacy.

Coauthorship

As another useful example, Marilyn Florence and Larry Yore conducted a multiple case study that examined the coauthorship process in two research laboratories. The study focused on two cases comprising five writing teams, one in Biochemistry and Microbiology and four in Climate Sciences. The role of the research supervisor, the role of the student (graduate and postgraduate), the interactions of the supervisor and the student, the activities and processes inherent in the coauthorship process, and the students' expertise, scientific writing, and entry into an academic discourse community were documented.

Multiple sources of data and multiple methods were used to document the coauthoring of research reports, the alignment between the students' and their supervisors' beliefs about writing, and whether coauthorship helped students become expert science writers. Data from cases were interpreted progressively starting with the Biochemistry–Microbiology case because other researchers had studied similar cases in this science area. Assertions derived from this case established expectations but

did not limit them in later analyses of the Climate Sciences cases.

The syntheses across the cases led the researchers to conclude that several activities and processes were found to be common across the teams: planning, drafting, and revising. Habits of mind, beliefs about the nature of science, and abilities to communicate the "big ideas" of science were evident. Elements of scientific and writing expertise, facets of enculturation into scientific research and discourse communities, academic civility, and the dynamics of collaborative groups also were apparent. There was healthy tension and mutual respect in the research groups as they attempted to make sense of science, report their results clearly and persuasively, and share the responsibilities of expertise. The novice scientists came to appreciate that the writing-editingrevising process influenced the quality of the science as well as the writing.

Science Writing Heuristic

As a third example, two research teams—Mark McDermott and Brian Hand as one team, and Murat Gunel, Brian Hand, and Vaughan Prain as the other—set out to synthesize the results of six case studies of the Science Writing Heuristic (SWH). The SWH is a pedagogical approach that uses writing to promote student learning in science. The Hand–Prain research group has been involved in the language–science learning research agenda for nearly 20 years; their research for the past decade has focused on SWH and its application in different instructional settings and in different science content areas. Their cross-case synthesis strategy was a secondary re-analysis of the original qualitative and quantitative data.

The re-analysis of the quantitative data by the second team used original test items and responses from different pretests and posttests across the 6 two-group case studies and followed a 3-step process. First, test items were reviewed and consistently classified as extended recall (retrieval of knowledge), analogy (cognitive, source, and target domains), and design (defining problem, transfer of knowledge, problem solution) questions; percentage correct scores were calculated for these question types and the total pretests and posttests for treatment and comparison groups. Second,

independent one-way analysis of variance (ANOVA) was conducted for each study on the treatment and comparison groups' total pretest-posttest differences. Third, independent two-way (2 × 3) analysis of covariance (ANCOVA) was conducted on treatment and comparison groups' posttest performance on the question types using pretest performance as the covariant.

These re-analyses revealed trivial to large (0 to 1.0) positive effect sizes for all studies. They concluded from the collective case that:

- Using writing-to-learn strategies was advantageous for students compared to those students using the more traditional science writing approaches
- Using diversified types of writing enabled students in treatment group to score significantly better on conceptual questions and total test than those in the comparison situations
- Importantly, when the cognitive demand of the question is increased from an extended recall to a design question, there are significant performance differences between comparison and treatment groups in favor of treatment

The authors argue that the use of writing-to-learn strategies requires students to rerepresent their knowledge in different forms, which fosters enhanced learning opportunities, and that traditional writing strategies tend to favor replication of knowledge.

Complementing this quantitative re-analysis, Mark McDermott and Brian Hand conducted a qualitative re-analysis of these case studies with the purpose of documenting the cognitive advantages and affective responses of writing-to-learn science approaches; they utilized a consistent interpretative framework and updated theoretical foundation across the collection of six studies. Identical and similar questions in the protocols were clustered under common intentions; student responses were open coded for each study individually to reveal potential themes within these intentions. Students' spontaneous comments related to learning and affective dispositions were also noted.

A master spreadsheet of key ideas from each study was developed for the collective case, and axial coding was applied to identify subthemes, percentages of respondents, and illustrative responses within the themes. Finally, selective coding was applied to create tentative assertions pertaining to each theme. The research group discussed these tentative assertions to develop overall assertions for the collective case. Specific responses clarifying a student's rationale for agreement or disagreement with each theme were selected and used to justify the cross-case assertions. They asserted that students believed:

- Writing-to-learn activities helped them learn.
 Students noted several characteristics that indicated increased cognitive involvement and promoted enhanced clarity.
- Writing to an audience other than the teacher was beneficial. This caused them to translate their ideas into different terminology and to create text appropriate for the audience.
- The process of drafting helped them construct knowledge. They could identify changes in their own understanding corresponding to changes in text.
- The writing tasks were unique and focused on science understanding, not creative writing.
- Several specific characteristics could be identified to promote learning benefits, but mechanical writing did not guarantee improved understanding.

The researchers concluded that these re-analyses provided consistent results about cognitive advantages and affective responses across the six quantitative and qualitative case studies and a more compelling, comprehensive description for the effectiveness of writing-to-learn science.

Critical Summary

Quality research is not simply the application of a one-size-fits-all approach, as might be assumed by the gold standard in the United States. Nor is quality research a simplistic question of qualitative or quantitative approaches. Rather, quality research involves alignment of the problem space, development of the related knowledge base, available technologies, and the design. Furthermore, quality research involves consideration of progress in the research agenda and the desire to extend knowledge about important problem spaces, which produces trustworthy results and compelling arguments

reflecting prior inquiries and applicability to similar problem spaces and settings.

The explication of case-to-case synthesis strate-gies and the examples above describe processes for building generalizing knowledge across case studies. In the current research climate where randomized controlled trials are considered the gold standard for research in education, such explications and examples offer valuable alternatives for generating knowledge that can inform policy, the education of teaching professionals, and programmatic initiatives. Case-to-case synthesis—whether conducted within an intentionally designed, multisite case study or through the identification of a collective of independently conducted case studies—provides researchers with rigorous, insightful, generalizing knowledge about a problem space.

Larry D. Yore and Gretchen B. Rossman

See also Analytic Generalization; Coding: Axial Coding; Coding: Open Coding; Explanatory Case Study; Generalizability; Genericization; Multiple-Case Designs; Multi-Site Case Study; Naturalistic Generalization

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CASE WITHIN A CASE

Case within a case is a specific research strategy that can be used when employing the case study methodology. This research design involves dividing a larger phenomenon of interest (the case) into a subset of smaller meaningful units (subcases). These subcases can then be used to compare both similarities and differences within and across the subcases in order to glean insight into the larger phenomenon of interest.

Conceptual Overview and Discussion

The case study is a method for doing research that involves gaining an in-depth, longitudinal understanding of a single phenomenon of interest within its natural context as it occurs over time. This research strategy is excellent for providing realism but is often criticized for its lack of control. Indeed, control is rarely something that those who use the case method strive to attain because they usually follow a constructivist philosophy and tend to view activities as being interrelated and interacting but not necessarily causally deterministic.

Thus in case research the purpose is to describe a sequence of interrelated, contextually bound activities rather than a few well-isolated causal variables. However, while asserting causality for a few independent variables is not the goal, researchers do still seek the ability to abstract away from the details of the specific phenomenon to provide generalizable theoretical statements. This is where identifying multiple subcases within an overarching case becomes a useful tool.

Dividing a single case into a subset of smaller cases provides the opportunity to identify both similarities and differences across the subcases. What is gained from this form of analysis often serves as the foundation for the theoretical generalizations that are difficult to ascertain when examining only a single case. For example, when researchers are looking for similarities across cases they will often use the subcases as independent "natural experiments" in order to confirm or disconfirm emerging conceptual insights. In addition to identifying similarities across cases, researchers can also examine differences. Differences between cases are used to help the researcher identify "what did not happen" and can help to dispel "naturalizing myths." Thus, rather than attempting to determine causal relationships across a few isolated variables, as is done in traditional variancebased approaches, differences between cases provide new ways of seeing and understanding how a given phenomenon may unfold in each of the subcases. Accordingly, dividing a single case into several meaningful subunits provides the structure that helps in making the elusive conceptual leap that is necessary to create theoretical generalizations.

In starting a case-within-a-case study, it is first necessary to identify a bounded system. That is, as in a regular case study, researchers should start by identifying a phenomenon of interest and the boundaries that will delimit what will, and will not, be studied. When the boundaries have been defined, the next step is to identify the subcases for comparison. It is usual that between 4 and 10 subcases will be selected, a number small enough to allow in-depth study and understanding, but large enough to allow for meaningful comparison. The subcases, as the case itself, should be purposively selected on the basis of satisfying some pertinent theoretical criteria.

If studying strategy implementation, for example, it may be useful to examine how the strategy is implemented by different organizational subunits, such as teams, functional departments, geographical sites, or operating companies. Thus, the subcases

would be formed through examining how the strategy (the case) is interpreted and enacted in each different bounded system (the cases within the case). While a strong theoretical rationale for case and subcase selection is important, another key logistical consideration when choosing cases is accessibility. The theoretical utility of the case is irrelevant if access cannot be gained to the research site. Thus, cultivating a relationship with an internal sponsor is a key component of case study research.

Once the case and subcases have been selected, the next step is to begin collecting data. This step again is similar to a single case study in that data can be collected from multiple sources using multiple methods. Different forms of data that are often used include interviews, observations, historical archives, surveys, official documents, and popular press articles. However, it is important to note that when collecting data, the case is the primary referent for choosing which methods and sources to use. In other words, the methods and sources should be chosen based on their ability to provide insights into the phenomenon of interest.

Therefore it is useful to create a case plan ahead of time in which initial decisions regarding types and sources of data have been made. However, it is also important to remain flexible to allow the pursuit of new data sources and questions as contextual understanding increases. A key difference between a single case study and a case-within-acase study is that it is not uncommon to have multiple researchers collecting data in studies with multiple cases where the work is divided on a per case basis. Having a case plan in this instance is even more important because it helps ensure that similar sources and methods have been used to collect the data across the subcases, which can in turn help demonstrate the robustness of cross-case comparisons.

The case analyses and write-up typically start with an in-case analysis of each of the subcases to ensure that a good understanding of each subcase has been acquired. At this point, interesting empirical and theoretical themes will start to emerge. After the *in*-case analysis is done, the next step is to look *across* cases for similarities and differences among cases. While these steps do appear linear, overall the case analysis should be pursued in an iterative fashion where there is a constant comparison between the overall case and the individual

subcases. As findings begin to emerge from cases, it is important to remember that while researchers want to stay close to the data, the final report should involve taking a creative conceptual leap to make theoretical generalizations that could be of interest to a broader population.

Application

An exemplar of the case-within-case approach can be seen in Ewan Ferlie, Louise Fitzgerald, Martin Wood, and Chris Hawkins's study of the nonspread of innovation. The case was organized with the purpose of understanding more about the diffusion of evidence-based innovations in healthcare organizations. The overall case, the National Health Service (NHS), was divided into eight subcases. Each subcase consisted of a single innovation that subsequently was followed throughout the diffusion process.

The subcases were purposively selected based on two criteria identified as relevant to understanding the overarching case. First, the team wished to examine the potential influences of differing healthcare contexts on innovation, so subcases were drawn equally from acute and primary care settings. The second criterion was based on whether the innovations were supported by strong or contestable scientific evidence, because the researchers theorized that this would be a central factor that influenced the spread of the innovation. When the researchers had selected the cases, they established a plan for data collection, a process that took place over a 3-year period. Data were collected from a variety of sources, including semistructured interviews, minutes of meetings, policy guidelines, and published and nonpublished reports.

Data analyses followed an iterative process in which, first, single subcase studies with common formats were produced. These then formed the bases for a thematic analysis that was conducted across the subcases. Given the large amounts of very rich data that are produced in such studies, it is quite usual for researchers to publish different parts of the case/subcases in different journal articles, and even to provide book-length accounts. Irrespective of how these accounts are disseminated, a vital step is to proffer theoretical generalizations.

The Ferlie team suggested that while strength of the accumulated scientific evidence influences which innovations spread, the spread of evidence is mediated by the social and cognitive boundaries between the professional groups that are responsible for enacting the different innovations. These "boundaries" between professional groups (e.g., doctors, nurses, hospital consultants, advocacy groups) have the potential for retarding the spread of the innovation. It is then argued that though this study took place in the medical field, these findings can be applied to other large, complex multiprofessional organizations such as consulting firms, pharmaceuticals firms, and major software houses. It is precisely this type of theoretical generalization emanating from subcase comparison that makes this method so compelling.

Critical Summary

While dividing a single case into multiple subcases is useful for generating theoretical insights, it is important to remember that a primary benefit of case studies is that they allow in-depth study of complex phenomena. Thus, researchers should be cognizant of the trade-offs inherent in creating subcases. As the number of subcases increases, the amount of information that can be gathered and used for each case decreases. Hence there is a constant need for researchers to balance the tensions between examining the overarching case and the subcases.

Maria Gondo, John Amis, James Vardaman

See also Comparative Case Study; Cross-Case Synthesis and Analysis; Multi-Site Case Study; Theory-Building With Cases

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CAUSAL CASE STUDY: EXPLANATORY THEORIES

The essence of explanatory theories is to answer "why" questions. To do so, causal linkages between events must be identified; this is what causal case studies do. They tell a story of a sequence of events or processes and thus lend themselves to building explanatory theories that generalize from the story.

Conceptual Overview and Discussion

Scientific explanations involve making causal statements, such as "a lightning strike ignited the fire," or "bacteria caused the infection." In social sciences, explanations involve volitional actors human beings—and therefore simple mechanical causality as in the above examples does not apply. To explain, for example, why the crime rate in certain neighborhoods has increased, or why a particular business firm has managed to outperform its competition, a whole network of causally connected factors needs to be identified. By focusing on telling a story—a temporal sequence of events in their context—case studies can accomplish this better than most other research methods (which are based on analyzing variances and cannot uncover causal direction).

Exploratory and descriptive case studies tell a story (what happened and how), but they do not pinpoint causality (why it happened) beyond identifying the chronology of events. For example, an exploratory case study may reveal that a patient had a parent with heart disease, was sedentary and consumed a high-fat diet, then had a heart attack. A descriptive case study might tell a story about a business firm with declining sales and profits, unmotivated employees, and lagging investment in research and development. While exploratory and descriptive case studies are important, they do not provide explanations or causal connections. Causal case studies do that, through extended research design and data analysis.

Causal case studies start with description. No explanation can be reached before the phenomenon of interest, whether a particular heart attack or superior business performance, is described; that is, we have a descriptive understanding of how the phenomenon manifests itself and what sequence of events has preceded it. But a temporal sequence of events is not a sufficient indication of cause–effect relationships; to uncover those, the case study researcher must take the analysis further. This entails looking for patterns, or themes, in the data. For example, maybe in neighborhoods with increasing crime rates, families with stable incomes have started moving elsewhere in search of more spacious accommodations, followed by local businesses. Or maybe businesses that outperform their competition have uniquely differentiated their products.

Application

Describing the case story and identifying and analyzing patterns within or across cases and iteratively comparing them with the data will allow researchers to uncover the causal networks at play in the focal case(s). They will be able to explain that businesses with superior performance are in tune with the needs of different customer groups, have chosen to serve one or a few of them, and then acquired the necessary resources and aligned all their activities to serve their customers exceptionally well, at a price customers are willing to pay. Customers reward them with profits, and they attract more customers with similar needs. Competitors are unable to copy what these superior performers are doing. This kind of causal explanation of a particular case is not yet an explanatory theory.

To move from causal case studies to an explanatory theory, one final step is required: Researchers must generalize from their particular causal explanations of single or multiple cases. This is an integrative and interpretive step, as researchers must bring the total of their and analysis to bear in order to distill the essential causal connections at play. For example, such generalization may yield the resource-based theory of the firm, or the value activity model developed by Michael Porter—both of them explain superior performance of business firms.

Explanatory theories can arise from a single case study, such as Graham Allison's study of the Cuban missile crisis, which yielded three plausible theories of organizational decision making. While a single case can give rise to an explanatory theory, multiple cases—analogous to replicated experiments—give us more confidence in the emerging theory, validating it both internally and externally.

An example of causal case study based on multiple cases is Ann Langley and Jean Truax's investigation of new technology adoption in small manufacturing firms. They conducted longitudinal case studies of five smaller manufacturing firms with two data collection phases one year apart, using participant interviews and available documents. Detailed descriptive chronologies for each firm's technology adoption process were developed and summarized in visual flowcharts that captured the complex causal relationships between choices made and various facilitating and inhibiting contextual elements (e.g., financing becoming available, or a strike). Comparisons of the causal sequences in the flowcharts and other visual displays allowed the authors to identify cross-case patterns of a technology adoption process that led to an explanatory model, consisting of three subprocesses: strategic commitment, technology choice, and financial justification.

Critical Summary

By telling a rich, contextual story—what happened and how—case studies naturally lend themselves to discovering connections between causes and effects, that is, to answering "why" questions, the basis of explanatory theories. Researchers conducting case studies can stop at describing "what and how" and explaining "why," but in order to induce an explanatory theory from their work, they have to make the integrative and interpretive step to uncover the general causal mechanism beyond their particular cases.

Jaana Woiceshyn

See also Case Study and Theoretical Science; Explanatory Case Study; Inductivism; Theory-Building With Cases

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CHARACTER

Within the realm of narrative analysis, the notion of character can be understood in two ways. The first is the understanding of who the social actors are and their importance to the narrative. The second use of character is a way to describe the overall theme or tone of the narrative.

Conceptual Overview and Discussion

There is more than one way to do narrative analysis. As Catherine Kohler Riessman points out, narrative analysis can have different foci. Thematic narrative analysis is an examination of the content of a narrative. The researcher is looking for reoccurring themes in the narrative that the participants construct and present. It is not so much a question of how the narrative is presented, but what it contains. Conversely, structural narrative analysis focuses on the arrangement and organization of the narrative. This form of analysis has its early roots in the work of narrative pioneers William Labov and Joshua Waletzky. They were among the first social scientists to articulate the form and structure of narratives.

When doing performative analysis, the researcher is examining the context of the narrative. Premised on Erving Goffman's dramaturgical theory, a performative analysis is aware that the narrative is not a verbatim recreation of events, but an identity presentation that incorporates sociocultural influences. It also recognizes the researcher/interviewer as a critical element of the narrative. The narrator is constructing and presenting him- or herself to a particular person, at a particular time and place. When the narrative is analyzed as a performance, one can see where C. Wright Mill's sociological imagination comes into play, as the connection

between private troubles and public issues is evident in a single narrative.

The last, and perhaps the most underdeveloped and least representative of the latest "turn" in social science research, is use of narrative analysis to explore visual material. Researchers in this subfield of narrative analysis take their guidance from thematic and performance analysis methods. This means understanding the visual as representative of the experiences and social world of the visual creator.

Within each of these subfields of narrative analysis one sees that the first notion of character (who are the social actors, and what is their importance to the narrative?) has a different level of focus. Doing thematic analysis means that with a focus on more societal or global issues, the actual characters are not of primary concern. The related acts and understandings tend to be at the center of analysis. Similarly, for structural analysis, it is not the actors in the narrative that are important, but the sociolinguistic elements such as clauses and word choices that become paramount to the analysis. It is with the last two forms of analysis, performance and visual, that the characters of the narrative become more important to the analysis process. In performance analysis the characters in the narrative are important to contextualize and situate the narrative in the larger sociocultural structures.

The other way that character can be understood in narrative analysis is to look at the overall tone and timbre of the narrative. This would involve identifying key elements and themes that would pervade different people's narratives and set them apart from others. This can be connected to the concept of genre. As narrative analysis has its historic base in literature, narrative researchers draw on literary genres to explain the types of narratives people present and why a particular genre form was selected. This could include presenting narratives that are comical, dramatic, heroic, tragic, and so on, as a way to get a certain point across to the audience and/or to make an identity claim.

Application

David Knight, Robert Woods, and Ines Jindra, in a case study project, looked at the differences in the way young men and women related their Christian

conversion narratives at a small private university in Michigan. They recognized that conversion narratives by and large have similar structural elements, themes, and identifications that set them apart. What had been missing, they argued, was an understanding of the degree to which gender shapes the communication of the conversion narratives. Drawing upon a more performative understanding of narrative in this case, the researchers questioned what the connection was between gender and the way a narrative is communicated.

One of the findings that is exceptionally pertinent to this entry is their discovery of the participants' use of character. In particular, who do the participants use as the central character in their conversion narrative? They coded for two broad categories in this instance: (1) self-oriented, and (2) other-oriented. As the codes would suggest, with a self-oriented central character, the narrator is the one driving the action in the narration. With the other-oriented central character, the person or persons moving the action at a critical juncture of the narration are not the narrator. This could include friends or family.

After analyzing the narratives, Knight and his colleagues found that when males told their conversion narratives, they were the central character. To illustrate this, they provided the case of Eric. Raised in a Christian home, Eric included no one else, such as his parents and family, until the end of the narrative where the researcher probed for more details. Conversely, females tell of others being central characters to their conversion narrative. Marcie, whose narrative they presented, emphasized the role a young male friend of hers (and subsequently his Christian friends) had in her narration. Marcie presented herself almost as a bystander to the events that led up to her decision to convert to Christianity. In these findings we see that gender does play a role in how one communicates a (conversion) narrative, by looking at who occupies the central character role.

Taking into consideration the second understanding of character (the overall tone of a narration), Mike Bury sets out to articulate the different ways one can analyze illness narratives. He sets the scene for his argument by stating that chronic illness has a "heterogeneous" character in that its symptoms affect multiple aspects of everyday life. As such, there are two narratives that come to be

developed: biomedical and lay narratives. This heterogenic character of illness permeates the narratives one tells about an ongoing illness.

For Bury, this notion of the character of a narrative is most detailed when discussing contingent forms of illness narratives. In this broad form, the researcher is analyzing narrators' articulation of their knowledge and beliefs as it relates to the onset of their illness, the illness's progression, and its affect on themselves and others around them. The contingent character, as Bury describes it, can be roughly understood in two views. The categorical view presented in a narrative involves the separation of what is normal and abnormal. This is representative of a biomedical understanding of illness. The spectral view understands that there is no firm distinction between what Bury has distinguished as illness and disease; here it is more a question of degrees. As such, illness in narratives that take this viewpoint is emergent in character; the social and psychological play a predominant role.

Critical Summary

Within the social science use of narratives, character tends to be a concept that is largely absent from the literature. Nonetheless, depending upon the form of the narrative analysis (thematic, structural, performative, and visual), characters in a narrative have varying degrees of importance. The other understanding of character as the overall tone of the narration tends to be more in line with an understanding of forms and genres.

L. Lynda Harling Stalker

See also Audience; Dramaturgy; Narrative Analysis; Narratives; Storytelling

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CHICAGO SCHOOL

What has become known as the Chicago School of sociology refers to the majority of those working between 1918 and 1965 in the Department of Sociology of the University of Chicago. Inspired by writings on social interaction, especially of those Wilhelm Dilthey and George H. Mead, the Chicago School eventually focused on case study and its analysis by analytic induction, later derived as *grounded theory*. The Chicago School pioneered the case study method, illuminating the social instance by detail of the particular.

Conceptual Overview and Discussion

By 1920 the case study method and its data analysis were established in the graduate department of sociology of the University of Chicago. The pioneering and founding work, *The Polish Peasant in Europe and America*, by William Thomas and Florian Znaniecki, contributed to the epistemology and methodology of the case study method. First published between 1918 and 1920 as five volumes, *Polish Peasant* is set around the exchange of letters between Poland and the United States of families of new immigrants along with case records of the lives and living conditions of Polish immigrants written by U.S. assistance agencies.

The coverage details explicit issues of adjustment to leaving Poland and being in the United States. Znaniecki, whom Thomas had met in Warsaw in 1913, talked in Polish to many members of the families to seek corroboration of detail. He is credited as the author of the methodological sections of the *Polish Peasant*. Znaniecki argued that research aspiring to application must work on special social problems, following the problem in a certain limited number of concrete social groups, studying it in every group with regard to the particular form under the influence of the conditions

prevailing in this society. This, as Chicagoan Ernest Burgess observed, was the actual introduction of the case study as method.

However, Znaniecki and Thomas attested during discussion at a meeting organized in 1937 by Herbert Blumer that the theory stated in the *Polish Peasant* and written after the field work was insufficiently grounded in the data. During the discussion, which was fully transcribed, Thomas said that the behavior document, whether autobiographical, case record, or psychoanalytic exploration, is a more or less systematic record of individual experience, and the claim for the document is that the extensive record of comparison will reveal the general schematization of individual life. Thomas collected about 8,000 items for use in the study, and the authors provided a historical context for the study.

William Thomas

William Thomas, who earned his doctorate in sociology at Chicago, and in 1894 was appointed to the faculty, 2 years after the establishment of the graduate department. Visiting Germany during postdoctoral studies in literature, Thomas found that his interpretive, comparative, relative position on literature was similar to the reflexive sociology of Wilhelm Dilthey, whom he met, and Georg Simmel. It is to be noted that with few exceptions (e.g., Aldous Huxley, Franz Boas, Wilhelm Dilthey, Georg Simmel), the human sciences were dominated by measurement, experimental "proof," and social Darwinism. Dilthey argued that the natural sciences systemize their data by moving toward the abstract, seeking the kind of relation that can be put into an equation, whereas the human sciences systematize by seeing the particular fact more and more fully in its context among other facts structurally related to it. These observations remain relevant to case study.

The University of Chicago, despite its Baptist foundation, was not determinist, but broad in outlook. John Dewey and George Mead were also appointed to the faculty in 1894, and the latter was especially influential, with Thomas, in the formation of the epistemology of what is nowadays often called the School. The department always included people who focused on measurement, and some like W. F. Ogburn (Chicago

1927–1952) were especially oppositional to what was by about 1920 called the case study method.

Fine-detailed descriptive realist narratives had been written before the *Polish Peasant* by Jack London, who was demure about his celebration as a sociologist. *The Road* (1904) is a fully documented case study of the life of a hobo, against which *The Hobo* (1923) by Nels Andersen, based on his Chicago doctorate, is meager in realist narrative. Both had lived as hobos for more than 4 years; London kept notes, and Andersen went back into the field as a participant observer.

Robert Park

Subsequent to the Polish Peasant, the Chicago School pursued reflective, interpretive research grounded in field work. The subjectivities of researcher and researched were taken into account, guided by extensions of the "I, me, thou" relationships promulgated by Mead and Thomas. Crucial to their protocol for research was the formation of self by interaction with others in detailed social contexts. Thomas, and his spouse Dorothy, who founded systematic social observation, left perforce for the University of California at Berkeley in 1942. He was succeeded on the faculty by senior investigative journalist and sociologist Robert Park, who had studied with Simmel. Park strengthened the field work and life history research and with colleague Ernest Burgess wrote the first U.S. sociology textbook, published in 1921.

Park researched, in part by case study method, the boundary maintenance and sources of conflict between communities of immigrants in Chicago. The street and avenue grid of the rebuilt city provided the demarcation lines. Park considered that many of his sociologist contemporaries were misguided in their attraction to an objective science, for their methods could not go beyond the superficial empirical facts. Park advocated the use of autobiography, letters, case records, fiction, and other items that were pristine rather than already categorized. Developing the work of Simmel, Park considered the field worker as a stranger in networks of affiliation, the details of which were to be discovered if at all possible by methods such as case study, document collection, unstructured interviews, observation, and participant observation.

An outstanding student of Park's, completing his master's degree in 1925, was Willard Waller. Waller constructed case studies following the guidelines suggested by Park. His dissertation on divorce was published as were his related works on dating (courtship) and marriage. He moved his case study focus to the institution of the school, where he described in detail over time the formation and dissolution of social relationships, the structure of the school, and the relationships to the wider community.

In all his research, he pursued the horizontal and the vertical relationships using the evidence from his case studies. His 1932 book *The Sociology of Teaching* has, like his other work, had belated appreciation as pioneering and prescient. Indeed Waller, although deceased age 46, fulfilled much of promise of the methodology of the *Polish Peasant* in work that survives as insightful and stimulating to inquiry.

Park developed the constant comparative method, as advocated by Thomas, in the sifting and inference stages of data analysis. The method is intrinsic to the Chicago case study method and in this sets the School apart from other universities, which began studies of the detail of the particular within explicit boundaries. The method of analysis developed and was later called analytic induction, or the analysis of deviant cases, and is central to "grounded theory." The method is a way of doing hypothesis-deduction and is most explicit in the post-1946 work of Chicagoans, especially Anslem Strauss and Howard S. Becker.

Differences in Perspective: Blumer and Hughes

Herbert Blumer studied with Park and developed the self-other-context relationships of Mead into a social psychology centered on subjective meaningful exchanges: symbolic interaction. Blumer voraciously read the output from the Chicago School: case study, social ecology, social survey, and so on. He was the philosopher critic to all comers. Appointed to the Chicago School in 1932, he was asked to assemble a critique of the *Polish Peasant*. The 1939 publication includes a transcript of the debate by the attendees, who included Thomas, Znaniecki, and Burgess.

When another of Park's students, Everett Hughes, was appointed to the Chicago School faculty in

1938, the friendly antagonism of Blumer provided colleagues and students with a constant comparative second opinion. Hughes advocated involvement in field work up to the neck and then, before drowning, returning to reflect on what had been learned. Blumer was never a field worker, and cautioned colleagues and students on what he considered the atheoretical and perilous forays advocated by Hughes. Between the cautions and forays, the Chicagoans of the 1940s to 1962 produced numerous field work–based case studies that penetrated the masks and mirrors of institutions and careers and role.

After earning his Chicago doctorate in 1928, Hughes completed a major community study of an industrializing town in Quebec stemming directly from the work of his teacher Park and strongly influenced by Simmel. On his appointment to Chicago, Hughes theorized about work and career, and researched these and transitions of role and identity. Hughes, with Park's contemporary Ernest Burgess, taught the compulsory field work course, sustaining a focus on the city of Chicago. Integral to the course was the allocation of a census tract to various student pairs, each being told to collect data about their assigned plot. Thus students were thrown into field work "on the hoof," as Hughes called it. Each course required a research paper, not an exam.

Application

The Third Generation

In 1955, Hughes in collaboration with Strauss, Becker, and Geer began the study of the socialization of medical students at the University of Kansas. Hughes was the director based in Chicago; most of the field work and writing was done by Becker, who was resident in Kansas City, and Strauss, along with Blanche Geer. Boys in White: Student Culture in Medical School displays the power and subtlety of the case study method; indeed it comprises many case studies. The data were assembled from participant observation of all phases of the "rite de passage," from documents, interviews, and so-called casual remarks. The researchers pursued apparent discrepancies and lacunae in the data in the process of its collection. No data were discarded, for all hypotheses were heuristic rather than firm during the process of the field work.

Toward the end of the field work, the researchers had a sufficient level of confidence that they were able to describe the processes of induction into professional medicine. This process was rich with conflicting demands and expectations of faculty as compared to students, whose ideals about medical practice were challenged, even overcome by the mundane yet priority demand of medicine under pressure of time and urgency. Boys in White and the subsequent study by the same collaborators on the consequences of graded testing in university, Making the Grade, are outstanding examples of interpretive field work forming case studies. Other notable case studies based on the deviant case analysis include Timetables by Julius Roth, Goldbricking by Donald Roy, and The Urban Villagers by Herbert Gans. Ervin Goffman's work was more orientated to illustrating and establishing theories. In Timetables, Roth began case studies of a TB hospital, whence he contracted TB and completed the studies from the perspective of a patient.

Anselm Strauss (Chicago 1952–1958) was appointed after his graduate studies in the department, as Blumer was leaving. Strauss understood the qualitative, interpretive, quantitative, and demographic and was also a field worker, methodologist, and theorist. In the 1960s he researched institutional social relationships in psychiatric hospitals where case studies detailed the shifting role and identities of both patients and staff. In a subsequent study, with Barney Glaser, of a terminal cancer ward, the case studies raised many questions about how staff conducted themselves in providing more or less information to the patient to raise or attenuate awareness of dying.

Strauss was keenly aware of the gap between theory and research as identified by Blumer, and published extensively on the epistemology and logic of interactionist research, discussing case method, which he considered synonymous with case study. His book *Qualitative Analysis for Social Scientists* is invaluable not only for its methodological content regarding constant comparison but also for setting that analysis in the wider context of qualitative and statistical methodologies.

Howard S. Becker completed all his degrees at Chicago, commencing in 1943 and completing his doctorate, on Chicago schoolteachers, with Hughes, in 1951. During the late 1940s, as a pianist, he

used participant observation to study the perspectives of dance band musicians, this becoming his master's thesis. Written mostly as narratives about the musicians, his work includes many case studies framed by a symbolic interactionist and reflexive theory. The same is true of his *Becoming a Marijuana User*, which details how the user learns to appreciate the special qualities of marijuana from sessions with experienced smokers. Through a career spanning 60 years, Becker sustained and further developed through his creativity the research of the Chicago School. His 1982 *Art Worlds* is about the political economy of the visual art market, rich with detail of the particular woven into a descriptive theory, iterating cases.

Becker took part in a 1975 conference in the United Kingdom on the use of case study in evaluation and educational research (*The Science of the Singular*, 1980) and integrated past and present understanding subsequently through meetings of 1988 and 1989, leading to the book, *What Is a Case?* (1992). Becker's chapter succinctly reiterates the main issues and extends these to related problems of present and future case study research. Having considered the worth of correlational and conjuctural analysis of cases, Becker takes up his position, which elaborates the centrality of developing imagery for research, this being propounded by Blumer. Becker concludes,

Narrative styles of analysis devote a lot of time and energy to developing this imagery, which is another way of talking about the analysis of the dependent variable. Developing imagery is a process in which we try to understand what we want to understand better. We do not search for causes so much as look for stories that explain what it is and how it got that way. When an analyst of causes has done the job well, the result is a large proportion of variance explained. When an analyst of narrative has done the job well, the result is a story that explains why it is inevitable that this process led to this result. (p. 212)

Critical Summary

In What Is a Case?, Andrew Abbott, currently professor at the University of Chicago, reconsiders the influence of Park and his students. For Park, concludes Abbott, causal analysis was secondary

to description, or narrative. Park encouraged the seeking of "universal narratives" such as those that reiterate the stages of development toward, for instance, delinquent behavior, revolution, industrial crisis, and occupational orientation, this latter being by far the dominant area of Chicago case study. Abbott ends his chapter with a plea to policymakers and social scientists to consider narrative case study as much or more than population-variable studies, as the former would disclose more of the causes of organizational perturbation. The innovative work of the Chicago School, exemplified in the work of Becker and of Strauss, continues to stimulate and be emulated by those struggling with case study.

Clem Adelman

See also Abduction; Case Study as a Methodological Approach; Case Study Research in Anthropology; Case Study Research in Education; Case Study Research in Medicine; Case Study Research in Political Science; Case Study Research in Psychology; Diaries and Journals; Grounded Theory; Interpretivism

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CHRONOLOGICAL ORDER

Chronological order applies to case study research in several ways and refers to the sequencing of events as they successively occur or have occurred. Simple ordering by such measures as date and time of day allows events to be presented and considered in a sequential, systematic, and organized manner.

Conceptual Overview and Discussion

Chronological time and, by implication, chronological order are to a large extent culturally dependent. In agrarian or aboriginal cultures and in some belief systems where time (and thus order) is reckoned as seasonal, cyclical, or generational, the chronological construct is less useful for grasping meanings of time as it is experienced by members of that culture. Some indigenous cultures (e.g., Hopi Indians) hold the view that all events are in present time and have no conceptual use for past or future dimensions. In such situations the what of an event is of greater importance for that individual or group of individuals than the *when* of the event. Accounting for such conceptions in case study research means acknowledging the representation as one way of providing context that is external to the event and may not fit with individual depictions held by researchers unfamiliar with cultural variations.

Chronological ordering is a device for imposing structure in ways that attend to sequence and duration as might be perceived and measured through inquiry of some sort directed by the topic and issues of interest. Clocks and chronological time are fairly recent developments, used in early days as assistive devices for summoning the religious to worship, workers to industry, and as a navigational aid. The division of time into zones

and yearly units into months, weeks, days, hours, minutes, and seconds has acted in fundamental ways that facilitate communication, commerce, and social cohesion around the globe.

Application

Consideration of the temporal domain in case study research applies beyond data arrangement and pertains to the researcher and sequencing of materials and methods used to gather data as well as ordering of data presentation in the research report. Chronological order is also known as natural order, as one event must precede or follow another event unless they occur simultaneously. Considering events in order of occurrence is a familiar device for organization such as can be found in stories that have a beginning, middle, and end, such as case studies presented in a narrative format.

Composition of a constructed story line depends on how the author chronologically organizes her or his procedures in order of processes and that guide inquiry. An inductive approach might derive from an existing framework imposing guidelines for the development of specific understandings, assumptions, and questions. A more deductive approach might consider events an issue for discovery of themes or central problematics, which then guide ordering and sequencing of subsequent steps, which may or may not be in chronological order. Order of encounter with issues as presented in research may thus cause different conceptions than issues first encountered in practice.

During initial problem development, the order in which related research is encountered may lead to or away from certain predispositions or attitudes toward the question or issue under examination. For example, a study of reading patterns may take a different turn if the author considers materials addressing matters of race, class, and gender prior to, or following, problem and question formulation. Topic and timing in the sequencing of questions or discovery of materials can predispose patterns of response or analysis visible as meaningmaking occurs during data analysis. Interviewer skills also increase over time as familiarity and comfort with procedures grow. Transcripts may show the effects of chronological time and experience as a tenth interview is usually of higher quality and more insightful than a first interview.

Following a chronological order in the elicitation of information, events, and meanings provides a chronicle of events organized by a time line. Temporal arrangement of events creates context from which meaning(s) can be derived depending on other events that occurred before, simultaneously with, or after the event in question. Relationships between events can be considered as cause, consequence, or coincidence based on chronological order or timing. Causal (X caused Y) or logical (X caused Y in ways that cannot be measured) relationships depend on chronological order and assume that X must precede Y, otherwise Y would not have occurred, and if Y did occur anyway, then something else caused it.

Sequence of collection may be different from the sequence imposed on events when arranged for reporting. Unless chronological order is rigorously imposed by an interviewer (which may cause a loss of valuable information), a participant's sequencing of recalled events, opinions, or ideas may show memory paths or an ordering of events in terms of a psychological time frame that draws experiences and perceptions together by like feelings or emotive content rather than the *when* of occurrence. Inventories of events, whether labeled by time or the nature of the episode, can assist the subsequent development of domains, taxonomies, components, and themes for reporting that capture the experience for the reader.

Chronological order is useful if not necessary for coherence when multiple accounts or participants are considered in context. Placement of cases or situations relative to each other in terms of actual occurrence can be used for verification or for purposes of contrast or comparison and can provide a context for simultaneous occurrences in other domains or cases. The conceptual calibration afforded by chronological ordering can assist critical assessment of balance between the beginning and ending of accounts by reversing their order.

Reverse chronological ordering is a technique sometimes used to ensure that history or background, whether of a client or research participant, does not outweigh current status or responses to investigative questions. Reverse ordering may also reveal relational aspects of events less visible when otherwise examined. Planned order may thus be revised as emergent themes cause reordering when contrasted with the order of necessity afforded by linear representations of time, whether forward or backward.

In collaborative research, more than one researcher and participant are usually involved and need to account for cross-event comparisons based on simultaneity. Chronological time or scenario-based time can facilitate understanding occurrences when viewed forward and backward as more balanced attention is paid across and within the beginning, interactive, and current status of investigative relations to the problems and participants at hand. Annotations of meaning in the form of links that transcend chronological ordering may assist larger understandings. Such approaches involve hermeneutical and phenomenological approaches that identify themes across and within stories and tellers. Data sources such as might be used to provide triangulation may be more robust when linked or associated by chronological ordering.

Chronological order can play a role in research as a long-term or short-term measuring stick. Daniel Levinson's *Seasons of a Man's Life* (1978) and *Seasons of a Woman's Life* (1996) covered significant portions of the life course of selected groups for many years. Studies of shorter duration include Rebecca Reiff's *A Day in the Life of a Student Teacher*.

Chronological ordering is also used for the development of sequence in chapter formulation for research reports. Communication of the process, content, and findings of a research study need to be presented in a systematic way that is intelligible and logical for the reader. Thus in the standard five-chapter format used in many reports (problem statement, related research, methods, findings, and conclusions), steps logically follow each other in both conceptual and temporal frames as each stage is dependent on matters addressed in the previous one.

Critical Summary

Chronological order and its companions, time, timing, and duration, are research tools that facilitate precision in communication of events. Attention to the expectations of such accounting methods in certain types of research is important for adherence to methodological consistency. However, alternatives to chronological order (e.g.,

psychological or seasonal) that require stepping off a time line may add details and richness to a study and acknowledge cultural and conceptual variations in the representations of events.

Michael Kompf

See also Before-and-After Case Study Design; Collective Case Study; Documentation as Evidence; Event-Driven Research; Juncture; Life History; Narratives; Process Tracing; Processual Case Research; Retrospective Case Study

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CLASS ANALYSIS

Class analysis is a theoretical approach in the social sciences. It explores the determinants and consequences of social phenomena in terms of class and class relations. Class analysis views society as being divided into hierarchical strata that have unequal access to material resources, power, and influence. It is based on the premise that class systematically and significantly impacts the lives of individuals, the dynamics of institutions, or the patterns of social change.

Conceptual Overview and Discussion

Class analysis can be conducted at either the microlevel or the macrolevel. The microlevel class analysis explores the ways in which individuals' class locations determine their well-being, beliefs,

and behavior (e.g., voting behavior, ideology, and offspring's educational attainment). The macrolevel class analysis focuses on the effects of class structure or class relations on a variety of institutions and trajectories of history (e.g., how variations in class structure across time or space, such as the decline of the industrial working class, affect the type of state or political regime).

Although class analysis has figured prominently in a great deal of social science research, the word *class*, which is pivotal in any class analysis, is one of the most contested concepts in the social sciences. There are varieties of class analysis; and these varieties are grounded in different understandings of what class is and contesting approaches to how best one can identify and/or measure different classes. The main distinction is between the gradational and relational notions of class.

In the gradational notion, class is used to describe a set of layers or strata in a hierarchy. These strata are generally distinguished on the basis of inequalities in material conditions such as income or wealth, as in the terms of upper class, middle class, and lower class. But they do not stand in any systematic social relationship to each other. Thus the gradational class concept does not entail any notion of systematic relations among defined classes. Social science research that is primarily interested in the statistical correlation of income and wealth with various social outcomes mostly uses a gradational definition of class.

In the relational conception of class, classes are defined in relationship to other classes. Given classes are internally related; that is, they are defined on the basis of the social relations that connect them to each other. The interests of a particular class are a function of the relations that bind it to other classes. The relational approach to class is interested in the causal mechanisms that produce socioeconomic inequalities as well as class as a collective actor that pursues its interests.

Application

There are, however, different traditions of class analysis that adopt a relational notion of class. The two most influential are the Marxian and Weberian traditions. Karl Marx was the first to develop a systematic theory of class, and his theory greatly influenced how the concept of class analysis has

been developed and used. According to Marxist scholars, production relations (who produces what, how, and for whom) are the most important of all social relations. The relations of production form the material basis of classes. Individuals who occupy similar positions in the production relations objectively belong to the same class. Classes are defined by the relationships of exploitation. Therefore, class relations are inherently contradictory and antagonistic, not only in terms of income or wealth distribution but also and more importantly in terms of production relations.

In capitalist societies, the working class and the capitalist class are the fundamental classes; and the key dynamic feature of capitalism is the exploitation of workers by capitalists. Marxist class analysis puts the emphasis on exploitation and antagonistic interests. Class is at the center of social change because of the conflicts antagonistic class interests create. Thus Marxist class analysis embodies a theory of historical change.

Marxist class analysis has three main elements that form the subjective and objective existence of class. The first element is class structure, which is the totality of objective class positions that make up a society. The second and third elements are class formation and class struggle. Class formation refers to the process of an objectively given class becoming aware of itself and its interests in relation to other classes and its organizing into a collective actor. A social class as a collective actor engages in a variety of practices to defend its interests in opposition to other classes, thus creating class struggles. Marxist class analysis has been criticized for its failure to account for the middle class in capitalist societies. Critics argue that professionals and white-collar employees do not easily fit into the Marxist analysis of class because they are neither working class nor capitalists.

Like Marxist theory, the Weberian approach to class analysis—based on the work of Max Weber—also has a relational notion of class. Unlike the Marxist approach, the Weberian notion of class focuses on exchange or market relations rather than production relations. It assumes no inherent, irresolvable conflicts of interest between classes. The hallmark of the Weberian approach is its view of the multidimensionality of social stratification. While class is an important determinant of the social hierarchy in modern society, it is not the

only factor. A variety of other factors, including authority, prestige, and occupation, play an important role in creating social divisions. Modern society is divided into many status groups that are determined by prestige and lifestyles, and that are distinct from social classes.

There are numerous case studies on a wide variety of subjects that employ class analysis. One of the major subjects for such studies is the class character of state institutions and policies in particular countries or political systems. A good example is Leo Panitch and Donald Swartz's study of the Canadian state's trade union policy. Many such studies investigate whether or to what extent the state is independent of the dominant class in society. The most influential of such class analyses of state autonomy include the work of Ralph Miliband, Nicos Poulantzas, Goran Therborn, and Bob Jessop. Gosta Esping-Andersen and Walter Korpi have conducted case studies of the welfare state in industrialized countries from a class analysis perspective. They explain the differences between countries in the historical development and type of the welfare state in terms of the class power of labor relative to other social classes.

During the past two decades, the relevance of the concept of class and of class analysis has been intensely debated. The downfall of communism and the loss of appeal of Marxism as a political project fueled arguments about the failure of class analysis. Although not all class analyses are Marxist, the class concept occupied a significant place in social science research during the 20th century to a significant extent due to the intellectual and political influence of Marxism. The decline of the influence of Marxism has been accompanied by a variety of arguments about the increasingly problematic nature of class-based explanations as well as the declining political relevance of class. Some commentators have argued that as a result of the major changes in employment relations, such as casualization of employment, decline of blue-collar industrial jobs, growth of service sector occupations, and hence increasing individuation in employment relations in recent decades, class no longer forms the bases for identities and collective action. Ethnicity, gender, or value commitment often now provides the referents for identity and political activism that once flowed from class.

Critiques of class analysis have also argued that the important conflicts and cleavages of contemporary society are not class based; they revolve around nonclass issues such as gender inequality, minority rights, and the environment. For some critiques, class analysis is inadequate as an explanatory framework for contemporary society because personal lives are increasingly autonomized as a result of the spread of the culture of consumerism.

Critical Summary

There have been two broad responses to the criticism of the failure of class analysis. The first response is to abandon the previously influential approaches to class analysis in favor of new approaches. Many of those who made a case for a new approach to class have been influenced by postmodern theory. They reject a single metanarrative of class and call for a pluralistic approach that reflects the diversity of culture and identity. Some have developed an explanatory framework that emphasizes the interdependence of the different social categories of class, gender, and ethnicity or race without assuming the primacy of class a priori. It is argued that class, gender, and ethnicity are internally linked and that systematic inequalities associated with any of these social categories are systematically related. That is, they can be understood only in relation to one another but without reducing them to any one category. These postmodernist inspired approaches to class and social stratification place more emphasis on ideational and discursive practices than material factors in explaining systematic inequalities and oppression in society.

The second response to the crisis of class analysis is to refine or revise the earlier major theories of class, mostly Marxian and Weberian, in order to address their inadequacies in view of the extensive transformations that have occurred in the spheres of production, market, and consumption on both the domestic and international scales. Unlike the first strategy, the second strategy remains committed to developing a comprehensive framework of concepts and methodology for the analysis of class and stratification. It is based on the conviction that it is possible and desirable analytically to separate class from other social categories while recognizing that they are combined in concrete situations.

Some scholars have recently pursued one of the two strategies in revising existing major approaches to class analysis to better reflect contemporary conditions. One strategy is to extend class analysis to the global or transnational level in recognition of the fact that national societies and economies are increasingly interconnected as a result of globalization. Until recently, class analysis, whether Marxist or non-Marxist, had taken national society as the primary unit of analysis. A growing number of class analysts have started to explore the emergence of classes and class relations that cut across countries. These class analyses have focused mostly on the formation of a transnational capitalist class as a result of the growing weight of transnational corporations and foreign direct investment.

The second strategy is to refine or add class positions within the framework of an existing class theory. Some Marxist class analysts, for example, have tackled the problem of how to accommodate middle-class professionals and new service employees within the Marxist class analysis that designates classes on the basis of exploitation in the production process. These efforts often involved borrowing concepts from the Weberian approach, such as authority, autonomy, and credentials. In conclusion, there have been significant efforts to reformulate and reinvigorate class analysis in response to its recent crisis.

Nilgun Onder

See also Base and Superstructure; Critical Theory; Historical Materialism; Means of Production; Modes of Production; Postmodernism; Praxis

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CLOSURE

Closure signifies that an event or series of events have occurred and reached an end or an end stage when planned or anticipated finalization or disengagement has or ought to have occurred. Closure implies resolution of matters associated with an event to the extent that individuals associated with the experience in question can move forward with a sense of conclusion and end.

Conceptual Overview and Discussion

Closure is a process with conceptual gradients attached to companion terms duration, ending, and resolution. By way of example, sporting events conclude when marked by the bell or whistle that signifies duration limit and the end of the event. Outcomes are determined by such rules or criteria that govern the activity, and resolutions or scores are entered into an official record under the appropriate statistical or outcome category. Once that event has terminated and the factual aspects of it are transformed into a data set, additional aspects of process may occur regarding incidents during the contest and stand as mythologized markers of the event. Depending on whether the contest was carried out with good or poor sportsmanship, fairly refereed or judged, replete with distinguishing behaviors or accomplishments (or lack thereof), and if the event carried large significance, for example, The World Cup of Soccer, resolution may not occur in spite of duration limit and end of contest. Residual markers of feats and follies as might be discussed at the next match would indicate that full closure is no more possible than full objectivity, as related events may invoke memory traces that open the event for reconsideration and reconstruction, such as new contexts for discussion and meaningmaking provide.

Closure in case study research is more complicated than sporting events as the personal stakes of psychological well-being are involved. Research questions developed for use in case studies that take advantage of the variety of available methods are intended to introduce a topic or question for the purposes of eliciting a truthful, meaningful, and significant response that can be used to elaborate or buttress findings later on. Questions about soccer games may evoke a set of responses basically contained within the respondent's constellation of constructs pertaining to soccer. It would make a large difference if the respondent were a fan, or a member of the team primarily responsible for winning (or losing) the contest. Added meaning-value is present dependent on the proximity and level of investment of the participant in questions and issues posed for consideration.

Opinions of experiences are different from opinions derived from experience as are vantage points of observers and participant observers. Different forms and depths of psychological motion begin with reflection on experienced events depending on level of impact and potency of derived meaning for the participant. Residual issues arising from questions about a match posed to the fan would likely be transitory and short-lived. The same questions asked of the winning or losing players would carry a greater likelihood of residual effects. The span of intellectual, emotional, physical, and perhaps spiritual connotations and attributions covering the range between victory and defeat is vast and rich with signifiers of meaning and understanding.

Application

Identifying and isolating a particularly meaningful or loaded event for examination, while compelling from an investigative perspective, carries with it the researcher's responsibility for ensuring closure in ways consistent with the expectations of Ethical Review Boards (Canada) or Institutional Review Boards (United States) and the most reasonable care and consideration for participant welfare. Whether pertaining to losing athletes, victims of violence and abuse, failing students, or burned-out teachers, opening issues with significant impact for

discussion means that additional care, attention, and measures must be in place to ensure adequate closure beyond the duration of the study. While participants do have ownership of their stories and do agree through informed consent to share them through inquiry, safety measures such as termination at any time to facilitate ease of closure must be anticipated when disclosure and discussion of perturbing events is part of, or inadvertently becomes part of the research process. Significant authentic engagement by the participant is an indication that extraordinary opportunities for closure may need to be in place. Closure may also require a physical or symbolic component such as publication and acknowledged co-construction of a meaningful account laden with meaning and learning.

Ross and Wright consider closure as it might be reached in simulations for training purposes and agree that it is a complex and multifaceted area that merits special consideration in that context. Such issues can only be of more vital consideration in real-life research. Equally important are symbolic closures such as destruction of transcripts or story pages as a way of acknowledging catharsis, control, and closure. Engagement with any participant on any question must ensure that appropriate checks are in place to bring about such reasonable closure as is possible in the circumstances of the research. Follow-up as promised (e.g., sharing findings or publication) and follow-up as dictated by respect for participation are essential and may in some cases prove more insightful than initial research findings.

Critical Summary

Closure, while desirable from a research perspective for both participants and researchers, may not be possible in its fullest sense. Self-declared closure may be the best that can be expected from research participants and must be accepted at face value by the researcher unless other problematic indications arise. Closure may be difficult to reach since requisite conditions may be as complex as the variety of issues of interest to researchers.

Michael Kompf

See also Alienation; Authenticity; Bounding the Case; Case Selection; Ethics; Interviews; Life History; Self-Presentation

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CODIFYING SOCIAL PRACTICES

Codifying social practices amounts to embarking on a process of transforming practical knowledge—knowing in action—into a message that can be processed as information. Today the social sciences, especially management, are interested in actors' practices and the progression of those practices. This new kind of research implies new kinds of investigation. Thus, qualitative methodologies have to consider not only how people tell about their practices, but also knowledge that is performed. Those undertaking case study research will inevitably encounter knowledge that is practical (tacit) and will face the task of codifying that knowledge.

After a brief overview of the sense that codifying social practices has acquired in the development of our societies, and its challenges within a knowledge-based economy, this entry then examines it within the framework of two extreme forms taken by knowledge management. It then examines the complex question of the tacit nature of practical knowledge—knowing in action—and finally the spontaneous and scientific methodological approaches designed to explain it.

Conceptual Overview and Discussion

History and Challenges of Codifying of Social Practices

The codification of social practices begins with writing. According to Jack Goody, this operation

expresses broadly a society's will to make up for the weaknesses and uncertainties of human memory with the aim of storing knowledge, perceived as a learning program. But writing also has cognitive effects on society, by developing abstraction capacities and the critical function, which play a specific role in encouraging new knowledge production. This operation takes on a particular value today, according to Dominique Foray, in relation to the emergence of a knowledge-based economy. In effect, the key factors for the success of companies and national economies are more than ever dependent on their capacities to produce and use knowledge. Since the main source of this knowledge is tacit, the problem of codification becomes vital in economic terms. In effect, codification makes it possible to detach knowledge from the person who possesses it. It involves a fixed cost that of expressing the knowledge in a language and recording it on some form of support (e.g., paper, databases)—but then increases the efficiency of a whole series of knowledge management operations: memorization, distribution, learning. Once a formula has been written, which may represent a significant fixed cost, it may then be communicated broadly at a negligible marginal cost. In the management field, Ikujiro Nonaka and Hirotaka Takeuchi have identified a key stage in the spiral of organizational knowledge creation, the spearhead of Japanese company performance: the stage known as externalization. It consists of the passage from tacit knowing to explicit knowledge. The codification of tacit knowing has become a challenge for both economists and managers—even as it is for researchers. It is a complex operation, due to the very nature of tacit knowing, which still seems impossible to reduce to a codification operation. In addition, the codification process can never supply all the knowledge necessary to undertake an action.

In pragmatic terms, companies that have undertaken knowledge management have found this problem a stumbling block at some point in the process. It arises in different ways, depending on the strategy implemented. Morten T. Hansen, Nitin Nohria, and Thomas Tierney have identified two key ways of envisaging knowledge management by organizations: Organizations operate with two different knowledge management strategies, namely a codification strategy where knowledge is

codified and stored in databases, and a personalization strategy where personal interaction is essential. These two forms of knowledge management reflect different visions of the organization—on one side, the paradigm of Herbert Simon's information processing system; and on the other, the community of practice of Jean Lave and Etienne C. Wenger. On one side there is a cognitivist vision, in information system terms, of knowledge management: It is the image of a physical platform for storage of information; on the other is a communitarist vision, in terms of management of human resources, of knowledge management: It is the image of the social network. The codification operation is as essential to the first strategy as it is negligible or even nonexistent in the second. Rather than completely contrasting these two forms of management, many authors try to combine them. We may well ask whether we are not actually in the presence of two socio-technical configurations, as defined by Bruno Latour, that we must describe effectively: What is a data warehouse without the people who use it? What is a social network that operates without any physical support? The operation of codification takes different forms, depending on the socio-technical pairing modes applied. Subsequently, we can envisage within a community of practice where there is mentoring between an expert and a novice, which is based, at a given moment in time, on the expert's expression of his practice, taking the form of a written discourse that the novice will use as a support within the framework of his learning. To tackle the question of codification from a methodological point of view, we must examine the nature of tacit knowing.

Nature and Foundations of Tacit Knowing

The universally recognized authority in any discussion of tacit knowing is Michael Polanyi. He puts forward the argument that there are things that we know but cannot tell. This is strikingly true for our knowledge of skills. He takes the example of swimming. We can say that we know how to swim, but this does not mean that we can tell how we manage to keep afloat when swimming, or how we coordinate the complex pattern of muscular acts by which we do our swimming. In the same way, in an everyday situation, we can easily recognize a familiar face, but we are incapable of identifying

how we do so. This shows that a simple action often reveals a far greater skill than we would have believed, and we are generally unable to describe the knowledge revealed by our action. The knowledge that we mobilize in practice is not the result of conscious learning: It is implicit knowledge, or tacit knowing, that is, related to knowing in action. In a similar vein, Donald Schön addresses the knowledge put into practice by professionals (teachers, town planners, managers, etc.) in exercising their activities. These different works converge in their thinking. They show that the practical knowledge mobilized by a subject in a situation is first of great value, and next that it is not directly accessible, meaning that it is implicit and not conscious. A long time before these works were conducted, psychologist Jean Piaget also reached a similar type of conclusion, in the 1970s. In effect, he looked at the question of the consciousness of subjects while conducting practical operations. Straightaway, he identified the fact that action in a situation is autonomous knowledge that remains largely unconscious. We can successfully complete an operation that is the positive sanction of a certain practice, but not understand it. Understanding, which is the literal meaning of conceptualization, supposes an effort of abstraction to a greater or lesser degree, depending on the subjects concerned.

Application

On this basis, psychologists such as Pierre Vermersch have explored the possibilities of articulating lived experience. From a phenomenological psychology point of view, he examines the tacit nature of knowing in action. Lived experience is not immediately accessible, for it is largely implicit in the sense of being prereflective. That is, it has not been made an object of consciousness, although this is possible. In support of his theory, he uses the distinction made by Piaget between reflecting activity, the act consisting of becoming conscious of lived experience, and meta-reflection, the act consisting of analyzing information already brought to consciousness. Vermersch constructed a device, the explicitation interview, to access this source of information on action: that which can be brought into consciousness, corresponding to the stage of reflecting activity and not the stage of reflection on lived experience.

Schön develops another method to access the hidden knowledge underlying professional action: "reflection on the reflection in action." In this way, he suggests following the process: (a) observation of the action, (b) recording of the action, (c) reflection on recording of the action, (d) description of the action, and (e) reflection on description of the action. Jerome Bruner demonstrated that the spontaneous narrative structure—a story—is essential for the transmission of human experience. This story always begins with a description of a usual setting (arena, actors, what happens . . .): It introduces normal things. Then, an unexpected event, a péripéteia, happens that modifies the course of the story and its ending. There is always a moral, but it is more suggested than formulated. This is a spontaneous way to codify and to hand down social practices.

Critical Summary

Many devices have been developed, either from practical knowledge or science, in response to this problem of codification of social practices. Vermersch provides the explicitation interview. Bruner demonstrates the value of spontaneous narrative structure. Schön points out the possibilities of reflection on the reflection in action. We must also note organizational practices in terms of feedback, analysis of work centers, implementation of quality standards, and so forth. In scientific terms, work psychologists and ergonomists, in the main, have built tools for the investigation of individual activity, which undeniably provide access to extremely valuable information. Progress has also been made in terms of investigation of collective practices, mainly by anthropologists. But as things stand at present, the question of articulation between these two perspectives, that is, to study at the same time both individual and collective practices, remains unanswered.

Pascal Lièvre and Géraldine Rix

See also Actor-Network Theory; Community of Practice; Ethnomethodology; Experience; Knowledge Production; Narrative Analysis; Phenomenology; Reflexivity; Self-Confrontation Method

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Coding: Axial Coding

Axial coding is the process of relating categories to their subcategories. Anselm Strauss and Juliet Corbin used this term in *Basics of Qualitative Research* as one of the data analysis techniques by which grounded theory can be performed. The essence of axial coding is to identify some central characteristic or phenomenon (the axis) around which differences in properties or dimensions exist. Axial coding is therefore a process of reassembling or disaggregating data in a way that draws attention to the relationships between and within categories.

Conceptual Overview and Discussion

Any exploratory research that is interested in developing theory has to deal with the interpretation of data in ways that specify the concepts of interest, causal relationships, the presence and effect of contextual relationships, and outcomes. Exploratory research usually relies heavily on qualitative research methods because they are particularly well suited to the exploration of patterns in data that are not guided by a priori expectations or constrained by the operationalization of complex phenomena. Case study research is often used in an exploratory way, looking at a single individual, organization, phenomenon, or event with the aim of understanding its complexity in as complete a way as possible. Doing so usually involves the collection of many different types of data, all of which need to be systematically analyzed in a way that identifies the specific concepts that are at play, and how they relate to each other to produce a certain outcome. Axial coding is one technique by which this analysis can be performed.

Strauss and Corbin describe several coding techniques particularly well suited to grounded theory research, that which generates theory derived from data in a systematic and rigorous way. At the heart of any theory is a set of concepts, the presence of which allows for the concepts to be studied in ways that generate propositions or hypotheses concerning the way they are related to each other. "Coding" is the label Strauss and Corbin use to describe qualitative data analysis as it pertains to the discovery of concepts and their relationship to other concepts. "Open coding" describes the process by which concepts are identified and their properties or dimensions discovered. Concepts are therefore the building blocks of theory.

Coding of this type needs to examine data in a conceptual way in order to identify what objects, actions, or events are present and are of theoretical interest. Often the process of open coding produces many concepts that can subsequently be grouped into categories based on something they have in common in a way that is important to what is being studied. Once a category has been identified, it becomes easier to develop in terms of its properties and to break down further into subcategories based on the particulars (when, where, why, and how) that are present in the data.

"Axial coding" is the process of relating categories to their subcategories, the outcomes of open coding. The term *axial* comes from the axis of a category, its properties and dimensions. Strauss and Corbin describe the basic tasks of axial coding as follows:

- Identifying the properties of a category and their dimensions. This process usually begins during open coding, when categories (something significant to respondents) and subcategories (answers to questions about categories) are first identified.
- 2. Identifying the conditions, interactions, and consequences associated with a phenomenon. These form a paradigm, or perspective taken toward data. This allows the researcher to code for explanations and to gain understanding of a phenomenon's complexity.

- 3. Understanding the relationship between a category and its subcategories. How these relate to each other is the basis for hypotheses or propositions because they link concepts together, explaining the particular manifestations of a phenomenon.
- 4. Searching data for ways in which categories might relate to each other. This allows for the emergence of novel relationships that may have previously gone unnoticed.

Application

The case of the Westray mine explosion in Nova Scotia, Canada, was used to study institutional influences on workplace safety. The article "Institutionalized Mindsets of Invulnerability: Differentiated Institutional Fields and the Antecedents of Organizational Crisis" used the techniques of grounded theory to understand how organization crisis occurred in a highly regulated industry with very predictable (albeit serious) safety risks. This study was interested in identifying the antecedents of organizational crisis in an organizational context of heavy regulation and established production technology. It therefore started with an outcome (an underground mine explosion) and examined its institutional antecedents.

The first major category identified in data analysis was institutional influence, established by the literature as an important factor in determining workplace behaviors. This category was later divided into three subcategories based on the different institutional logics in play, each of which took particular forms in the day-to-day work lives of the underground miners. During this process of coding another category was identified—perceptions of risk—that was related to the organizational practices and contextual characteristics present in the organization and its environment. These two categories were shown to be mediated by an attitude referred to as a "mindset of invulnerability" that explained the relationship between the two categories and made sense of an organizational crisis that was entirely preventable.

More specifically, the process of open coding identified micro-institutional processes as a major category. Subcategories were later created as different institutional logics (i.e., instrumentality, appropriateness, and orthodoxy) were identified in the

larger category of institutional influence. For example, a logic of instrumentality was at the root of regulative processes that guided individual behavior in an coercive way. Further specification of this subcategory identified three constructs that were manifestations of this type of institutional influence: (1) the illusion of regulatory protection, (2) peer pressure, and (3) intimidation/harassment.

Axial coding was the process that revealed the centrality of institutional logic in this category, as well as the relationship between it and the emergent category labeled perceptions of risk. The resulting model showed how organizational crisis was due in large part to a mind-set of invulnerability that resulted from a compounding set of institutional pressures, none of which on their own would likely have resulted in crisis.

Critical Summary

The process of data analysis is central to the reliability and validity of all research. Strauss and Corbin use the term coding to refer to data analysis, the process by which labels and meaning are attached to data that are observed. Qualitative research is centrally concerned with providing compelling arguments concerning what is going on and what significance it has for the world around us. The process of coding is a careful examination of data (e.g., interview transcripts, observations, media reports, memos) with the purpose of interpreting them in meaningful ways. Open coding that identifies categories and subcategories, combined with axial coding that identifies the relationship between and within categories, combine to form a rigorous approach to qualitative data analysis that allows the possibility of revealing new concepts and novel relationships that allow for the refinement and development of theory.

David Wicks

See also Coding: Open Coding; Grounded Theory; Reliability; Validity

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CODING: OPEN CODING

Open coding is an essential methodological tool for qualitative data analysis that was introduced in grounded theory research. *Open coding* refers to the initial interpretive process by which raw research data are first systematically analyzed and categorized.

Conceptual Overview and Discussion

Barney Glaser and Anselm Strauss were among the first to formally introduce the procedure of open coding in their seminal work, The Discovery of Grounded Theory. In this study of the behavioral patterns of hospital workers and dying patients, Glaser and Strauss modeled how intuitive and inductive researchers must be personally and actively involved in the coding of field data in aid of theory development. Open coding is the process through which "grounded" researchers initially begin the process of questioning, reflecting upon, and categorizing the actions, perspectives, and words of the actors in their study through their raw research data. Open coding is the initial data work that builds from the ground up, by identifying essential concepts and patterns that emerge in vivo from an initial, yet rigorous open reading and reflection upon raw data.

In grounded theory research, open coding is one of the three types of coding that are used progressively: open, axial, and selective coding. Open coding is the initial intensive interplay of an interpretive or interrogatory and often intuitive process between researcher and data by which the raw data, including words, phrases, events, or actions, are broken down, taken apart, or analyzed for their potential or relevance to the identification and conceptualization of phenomena that emerge from collected data. In open coding, concepts, the most basic unit of analysis, are identified from distinct events, incidents, words, or phrases in the data and are given conceptual labels or identifiers. Events, actions,

and interactions are grouped together to form categories and subcategories. Each category represents a unit of information with properties that can then be examined against the data themselves. Then, following this, axial coding is the process of relating categories to their subcategories and testing against the data. Finally, selective coding is a means of unifying relevant categories into a "core" category that represents the central phenomenon of the study.

Open coding entails a constant process of questioning and comparing that serves to limit researcher subjectivity. Open coding stimulates generative and comparative questions to guide the researcher in future coding and interpretation and in theory development, and may even guide the researcher to return to the field for more data. Open coding is in a sense the initial structured conversation between the researcher/theorist and the data. It has been described as like the first peek at the insides of an egg freshly cracked and poured into a pan.

Application

Open coding, in contrast to axial and selective coding, is not directed solely toward the whittling down of data into a manageable mix of concepts, perceptions, patterns, and actions. Rather than reducing information, open coding begins to organize it into meaningful categories. In some senses it could be described as a process of critical translation by which the researcher, on a word-by-word basis, identifies and organizes raw data into broad categories of words, actions, and perceptions.

In open coding, the most mundane categorical identification is completed. For example, open coding ensures research subjects are clearly identified, and demographic and other relevant personal and professional information, such as gender and age, occupation, professional relationships, and responsibilities of the participants, is applied. However, this is not to say that open coding takes place only at such a mundane level, since it progresses from this very matter-of-fact level of analysis to entail meaningful theoretical and intuitive sensitivity to multiple perspectives and issues of gender, sexuality, class, and race and other differences and relationships between and among the study sample.

Open coding is the commencement of a long process of working the raw data, through constant comparison, initial conceptual identification, and categorization. As the first and perhaps most important reading of the data, during open coding the researcher is especially interested in identifying and illuminating patterns and concepts but not refining or delineating, which is completed during later stages of the data interpretation process.

Open coding could perhaps best be described as an intense interplay, or perhaps more accurately as an intense and somewhat repetitive argumentative conversation between two people who have been introduced but are not overly familiar with each other, and are focused on constantly comparing their own interpretations of their experiences for the purpose of guiding future, more detailed conversations.

Critical Summary

Open coding is the initial conversation between researchers and the voices, actions, and events of their raw collected data. It requires a high degree of researcher intuition and theoretical sensitivity. It is by nature a rigorous and painstaking process of analyzing or translating, word for word, raw data into usable theoretical or conceptual chunks or categories. It calls for constant comparison, theoretical questioning, and requestioning of data. It is, in short, an intensive process by which data are rigorously analyzed for embedded phenomena, patterns, concepts, and themes. Open coding is often enhanced by data collection from multiple but comparable cases or samples.

Jason Matthew Cameron Price

See also Coding: Axial Coding; Coding: Selective Coding; Cross-Case Synthesis and Analysis; Grounded Theory

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CODING: SELECTIVE CODING

Selective coding refers to the final stage of data analysis to be completed after core concepts emerging from the coded data categories and subcategories have been identified through open and/ or axial coding. During selective coding, previously identified discrete concepts and categories are further defined, developed, and refined and then brought together to tell a larger story. Selective coding is the stage in data analysis where core concepts are identified, and then abstracted, yet empirically grounded theory is generated.

Conceptual Overview and Discussion

Selective coding, which is also referred to as substantive coding, takes place after initial core categories and concepts have been identified in the data. Selective coding concentrates on theoretical development regarding the nature and relationships of core or essential categories and concepts emerging from the data being worked. The results of selective coding can range broadly from grounded explanations of behavior drawn from core categories, to the creation of broad theoretical abstractions based on these core categories, which serve as the building blocks for grounded theory. Selective coding, although often thought of as the final stage in data coding, can often lead the conscientious researcher back into the raw data for a final search for data related to the core codes developed during open and axial coding stages. While the effect of open and axial coding is the systematic fragmentation of the data into core codes and concepts, selective coding is a heuristic process of reconstruction and reconstitution. It is not uncommon to categories and subcategories.

Although any discussion of the methodology of grounded theory must involve a discussion of the pathbreaking work of Barney Glaser and Anselm Strauss, it is important to note that substantive differences developed over time between these two pioneering sociologists, not least of which was their individual understanding of selective coding. For Strauss, selective coding is a crucial stage in theoretical development that calls for highly developed theoretical sensitivity on the part of the researcher. The process of discovering and abstracting and articulating theory from data that has been coded in a systematic fashion through open and axial coding into a number of categories and subcategories requires significant intellectual finesse and an eye for nuance. In contrast, Glaser constructs selective coding as an almost automatic result of the previous stages of data analysis where relationships between data have been repeatedly compared and contrasted. For Glaser, the coded data are in a sense self-selected through the evolving process of data analysis, and the selective coding stage is essentially about clearly identifying, exploring, and clearly articulating core concepts in theoretical terms. Glaser was concerned that Strauss's almost scripted approach to the methodology of coding might lead to researchers making data fit categories, and therefore, data and categories that fit theory, rather than finding categories and theories that emerge from data.

Application

In case study research, selective coding is the culmination of an intense process of discovery and exploration of an institution, event, or individual. As the initiating stage for theoretical development, selective coding is in essence about articulating empirically grounded theoretical statements that are designed to explain or understand social behavior or social problems.

Kui-Hee Song explored the issue of resolving child abuse problems in Korean immigrant populations through a grounded theory case study of an American Korean immigrant family. This family was working to resolve abuse through clinical intervention by child protective services. In this highly detailed case study the author attempts, through grounded theory, to explore the possibility of applying theoretical ideas related to postmodernism

and multiculturalism. Song was interested in understanding the therapeutic process and cross-cultural communication involved in resolving child abuse concerns across cultural differences. In order to deal with the inherent difficulties in coding and interpreting data across language, Song developed codes incorporating Korean conceptual understandings. To aid in the reliability of her codes, Song employed another researcher to code much of her data independently.

Open coding began with transcripts of interviews with the family at the focus of the case study. Some preliminary possible codes or categories were identified in advance of the interviews by the researcher as she was utilizing a number of data sources in addition to participant interviews, including documentary report analysis, respondent letter, and participant observation notes. However, the core categories regarding the clinical resolution process emerged from taped transcripts of interviews. Transcripts were read and reread by Song to refine and define the core categories of her research, a process normally defined as axial coding. Song then engaged in the theoretical generation or *selective* coding of her data, where she selected her core categories, explored the inter- and intra-relationships of the categories, and began to generate hypotheses and theories to bring insight into the complex process of cultural communication and negotiation in cross-cultural institutionalized settings.

Critical Summary

Selective coding is an integral process in grounded theory data analysis and theory development. It is a deductive and creative process. It is the point in the data analysis process where the researcher begins to apply theory to the core categories of the collected and open-coded data, and to generate theory from the data. It demands both intellectual rigor and theoretical sensitivity. Selective coding begins after the identification of core categories. It is a process of both discovery and illumination, which can result in theoretical generation of different levels of abstraction from the data, while still being empirically grounded in the data.

Iason Matthew Cameron Price

See also Coding: Axial Coding; Coding: Open Coding; Grounded Theory

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COGNITIVE BIASES

Cognitive bias is a general term used to describe a tendency to make a systematic error in thinking or reasoning. Normative systems such as formal logic, probability theory, and choice behavior by formal decision theory have been used by psychologists and economists to evaluate and detect cognitive biases in human reasoning. Unless actively avoided, cognitive biases can influence the manner in which human beings think about planning, executing, and interpreting data collected for research studies, including case study research.

Conceptual Overview and Discussion

Cognitive biases often occur when people use shortcuts in thinking. In the 1960s, Amos Tversky and Daniel Kahneman began their pioneering research on biases when they discovered that experts were overconfident in the replicability of results from small samples. These shortcuts in thinking, also termed *heuristics*, work reasonably well when people need to make quick decisions. However, heuristics can lead to systematic biases in thinking, especially in situations calling for systematic and logical reasoning.

Leda Cosmides, Gerd Gigerenzer, and Steven Pinker theorize that the ability of human beings to make quick decisions has evolutionary value because in some situations, especially those deemed dangerous and harmful to our survival, quick responses are vital. Furthermore, cognitive scientists such as Jonathan Evans and Steven Sloman hypothesize that the ability to make quick decisions is part of the brain's dual information-processing system. One part of the system is conscious, slow, and sequential, linked to working memory and measured intelligence, capable of abstract and hypothetical thinking, able to be controlled, and effortful; the other part is unconscious, rapid, associative, pragmatic, efficient in memory resources, independent of general measured intelligence, and relatively effortless. Heuristics arise from this second system and often lead to satisfactory outcomes in vital situations; however, they can also lead to serious errors in thinking that should be avoided in situations that call for more controlled and effortful thought.

Cognitive biases can arise in almost all forms of thinking and reasoning, including quantitative judgment, decision analysis, moral thinking, and social dilemmas. While many examples of cognitive biases exist in the psychological and economic literature, common cognitive biases expected to arise in case study research include those pertaining to hypothesis testing, judgments of probability, and correlation and contingency. Classic examples of cognitive biases in judgments of probability include the hindsight bias and biases arising from the representativeness heuristic and the availability heuristic. In hypothesis testing, commonly illustrated examples of cognitive biases include the congruence or confirmation bias and the information bias. Finally, in judgments of correlation and contingency, pertinent cognitive biases include the attentional bias, and those arising from the effects of prior belief leading to illusory correlations. A brief definition for each of these biases follows.

Representativeness Heuristic. Estimating the probability that an event A belongs to (or originates from) a particular class B by evaluating the degree to which A is similar to or typical of B. This heuristic can lead to errors of judgment because it ignores prior probabilities of classes (i.e., the prior probability or base rate of B) and therefore can lead people to categorize events incorrectly into classes.

Availability Heuristic. Estimating the probability of event A versus event B by the frequency with which A and B can be brought into memory. This heuristic can lead to errors of judgment because a

memory search for instances of A and B may be governed by what people find salient about A and B and not by a proper sampling of A and B.

Hindsight Bias. The tendency for people who know a particular event A has occurred to overestimate the probability with which they would have predicted its occurrence before it took place.

Congruence or Confirmation Bias. The tendency for people to confirm their hypotheses or expectations through direct tests (e.g., if you expect event A to be found behind door No. 1 and not door No. 2, checking door No. 1 exclusively) instead of falsifying their hypotheses through indirect tests (e.g., if you expect event A to be found behind door No. 1 and not door No. 2, checking both doors No. 1 and No. 2).

Information Bias. When deciding among different courses of action, the tendency for people to seek out information for purposes of curiosity that is devoid of value for deciding a course of action.

Attentional Bias. The tendency for people to ignore evidence or avoid looking for evidence against an initial hypothesis, in addition to a failure to consider alternative hypotheses.

Effects of Prior Belief (Illusory Correlation). Persistent beliefs or expectations about what variables ought to be associated can lead to the perception of a systematic correlation between those variables even when none is present; persistent beliefs can also lead to a failure to detect correlations that are actually present.

Application

The cognitive biases defined in the previous section can contaminate all forms of research, including case study research. In case study research, an iterative analysis of cases is often undertaken to identify emergent themes (and explanations) to answer a research question. Repeatedly reviewing cases to find common themes and explanations for events lends itself to potentially eliciting cognitive biases. For example, in the process of classifying

case events or occurrences into categories, researchers could unknowingly invoke the representativeness heuristic by neglecting to consider the prior probabilities of the categories being considered. Likewise, the availability heuristic could be invoked by using categories that have been used in past research but that do not apply well to the case events under consideration. The hindsight bias could also contaminate thinking by distorting the perceived likelihood of events in case studies. Cross-checking data analyses by having multiple cases and methods of classifying or sorting data by several investigators can help improve reliability and validity arguments.

Case study research also lends itself to committing the congruence or confirmation bias and the information bias. Because case study research often involves selecting key cases to observe and study, investigators need to avoid selecting only those cases that will confirm their hypotheses and ignoring cases that stand to falsify their hypotheses. Although some cases may appear understandable to include for analysis because of their match or relevance to the research question posed, too much focus on a direct test of a hypothesis may obscure inclusion of indirect tests; that is, including cases that appear to negate the hypothesis being considered. Finally, the information bias can be avoided by continuously recognizing the objective of the analysis and avoiding the temptation to include and/or review cases or case events simply out of curiosity.

The final two biases—attentional bias and illusory correlation—share similarities with the others described previously. Attentional bias can contaminate case study research when a single hypothesis is considered and alternative hypotheses are not. Attentional bias can feed into a confirmation bias when the researcher seeks to confirm a single hypothesis by attending to a narrow set of cases or events (data) that essentially provides positive evidence for the hypothesis under consideration. The final bias can result from the effects of prior beliefs. Although prior beliefs inform the generation of research questions and hypotheses and are therefore needed in conducting scholarly investigations, they have also been shown to influence the interpretation of data. For example, prior beliefs can lead investigators to believe that a relationship exists between two variables where none actually exists—a bias labeled illusory correlation.

Critical Summary

Cognitive biases, reflecting systematic errors in thinking or reasoning, arise from the quick, pragmatic, and adaptive nature of one part of our information-processing system. Although cognitive biases may be highly useful in helping us make quick decisions in hazardous environmental conditions, they can lead us astray when making decisions in situations that require controlled, thoughtful, and logical thinking such as in scientific endeavors. There are a variety of cognitive biases that have been identified in the literature, and seven were defined and illustrated here. Investigators conducting case study research can avoid committing these seven cognitive biases by generating empirically grounded rationales for the categories used to evaluate and classify cases, and recognizing the need to seek falsifying evidence for "pet" hypotheses.

Jacqueline P. Leighton

See also Hypothesis; Informant Bias; Interpreting Results; Probabilistic Explanation

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COGNITIVE MAPPING

One way we provide meaning to our world is through the development of mental representations. It is through our ability to code, store, recall, and decode information about the locations and attributes of objects in our world that we are able to discriminate and classify phenomena. By developing cognitive maps, it is possible to maintain and retrieve visuals, space, and movement; to manage phenomena; and to illustrate relationships and connections between these entities. Mapping these mental representations allows the brain to guide behaviors and thought processes. How this is achieved is discussed by cognitive researchers, and the application of cognitive maps is evident in the qualitative research and educational environments.

Conceptual Overview and Discussion

The origin of cognitive mapping is derived from the field of cognition examining the internal mental models constructed by individuals. First introduced in 1945 by John von Neumann, cognitive mapping was used to compare computers and the human brain. The electronic circuits of a computer were described as analogous to a neuron firing in the brain, while computer programs were a metaphor for the way in which information was detected, stored, and recalled by the brain. This comparison was used by Edward Tolman to explain how mice repeatedly navigated their way through mazes. By developing a "map" of sensory information using smell and movement, mice were able to use selective recall to navigate through mazes. These behaviors were fine-tuned over repeated iterations.

During the 1980s, contemporary cognitive psychologists revisited this behavioral approach, arguing that human behavior is purposeful and goal-directed with intended expectancies to meet directed activities. Albert Bandura, for example, proposed that humans used activities to guide themselves and others through the behavioral, cognitive, and social processes of daily life. He illustrated this by arguing that a role of parents is to guide their children over time by articulating information to create boundaries that children can use

to organize and interpret their world. The success or failure of this cognitive mapping is judged by the outcome of a child's behavior. The parents observe, reward, and/or generate new feedback depending on this outcome.

Cognitive mapping is well suited as a tool in qualitative research studies. It is particularly useful in case study research as it focuses on purposeful behavior in response to a phenomenon. To explore how individuals relate and respond to a given phenomenon, a "map" is created based upon assumptions, guidelines, and practices. By establishing boundaries through a series of geographic, temporal, organizational, institutional, or other defining criteria, a "map" is created that explains how a given phenomenon is realized in a specific context. Research studies are based on the design of structures that gather and analyze information by identifying, observing, and articulating the phenomenon in question. Developing cognitive mapping procedures enables researchers to see the phenomenon and to propose a conceivable research framework that can then produce problem-solving opportunities.

Application

Cognitive mapping is used by David Ausubel in the development of advanced organizers. He uses this method as a tool to provide a cognitive instructional strategy that promotes learning and retention of new information by students. By displaying phrases of words, students are exposed to a way of thinking about a subject prior to investigating it in detail. Richard Mayer notes this classification system enables learners to cognitively map or organize new information onto existing mental frameworks of categories or schemata. Existing knowledge is housed in expository organizers, while schemata that build connections between existing knowledge and new information are known as comparative organizers. Together, these cognitive maps enable the learner to accept, store, retrieve, and utilize existing with new information, to transfer knowledge, and to follow the process of problem-solving behavior and strategies.

Ausubel indicates this process is frequently used in schools for note-taking, learning new vocabulary, motivating students to read, and learning at higher levels of abstraction, generality, and inclusiveness. In each case, the development of cognitive maps through advance organizers provides methods that can assist students to learn, to retrieve information previously presented and at the same time, teach and add new concepts. Organizers are therefore cognitive maps designed to conduct and evaluate learning while providing meaningful learning for students.

Reuven Feuerstein applies the concept of cognitive mapping in a different way by exploring the mediated learning experience between parent and child. The parent selects; organizes facts, words, or instructions; and then frames, filters, and organizes these for the child. The youngster analyzes and categorizes this information with a cognitive map composed of at least seven parameters including content, operations, modality (i.e., figurative, numerical, or verbal), phrase, (i.e., input, elaboration, output), complexity, abstraction, and efficiency. The aim is to establish this new information into a cognitive map or a framework that the child has developed, understands, and can utilize. Young children are very quick to process information once they have developed early personal maps to incorporate new information. In fact, parents are often surprised at the speed at which young children can use these internal maps in unexpected or surprising situations.

Building on the work identified by others, Clive Lawless describes a distinctive feature of cognitive mapping within the education field. He notes that mapping is commonly used to emphasize relationships between entities, offering ways to describe and visualize concepts. In this case, the psychological process of cognitive mapping is displayed by the use of concept maps. These physical maps represent a structured process, focusing on a topic or construct of interest involving one or more phenomena that enable participants to visually present concepts and ideas.

Learning is thus represented as the accommodation and assimilation of new ideas incorporated into existing cognitive structures. By drawing nodes to represent concepts and lines to indicate relationships, these hierarchical, spider, and other forms of maps can be visually represented. These diagrams are idiosyncratic, offering visual schemata of meaning that vary with knowledge acquisition, time, and situation. A primary advantage of this visual representation is that viewers are able to "see" the relationships and conceptual approaches more clearly.

The applicability of these diagrams can be particularly useful for students learning about a discipline. For example, Josephine D. Wallace and Joel J. Mintzes studied how science methods were learned by student teachers. The cognitive processing steps used in science were displayed by subjects who presented their understanding using a concept map. Compared to a control group, the teachers showed significant development in their understanding of concepts and propositions, and showed an increased amount of knowledge retained and the way in which this knowledge was organized by these teachers. Joseph Novak and Bob Gowin note that concept maps are conjecture and are visual tools that are limited to reflecting a means rather than initiating the "act" of learning.

Other visual representations are discussed in the literature. Mind maps described by Tony Buzan are diagrams representing words, ideas, tasks, or other items linked to a central or key concept. These may be helpful to generalize, visualize, or structure information or as an aid in the study, organization, problem solving, decision making, or writing related to research work. Novak and Gowin offer many practical applications of concept mapping as an extension to the cognitive mapping process.

Critical Summary

Cognitive mapping is difficult to distinguish today because it is an internal cognitive process. It is much easier to demonstrate the cognitive process through the myriad supporting devices, including concept maps, mind maps, spiderwebs, concept sorting, fuzzy cognitive mapping, semantic maps, networking, idea maps, or word webbing maps. The value of cognitive processing is the ability to represent the schematic that organizes concepts, knowledge, and the relationships between phenomena. The value of this tool is that it reduces cognitive overload, promotes internal cognitive streamlining, and provides enhanced recall and learning of information. All can be very helpful in research and educational settings. The challenge of cognitive mapping is that is an internal, hidden process that is difficult to prove without the presence of visual representations.

See also Action-Based Data Collection; Case Study Research in Education; Concept Mapping; Diaries and Journals; Self-Confrontation Method

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COLLECTIVE CASE STUDY

Collective case study involves more than one case, which may or may not be physically colocated with other cases. A collective case study may be conducted at one site (e.g., a school, hospital, or university) by examining a number of different departments or other units at that one site. Each unit is studied as part of a collection, regardless of whether the units themselves are located at single or multiple sites. The term *collective case study* is sometimes referred to as *multi-site case study* or *multi-site study*. There seems to be little difference in the definition of these terms. Although 21st-century scholars may struggle to find an appropriate label for this type of research, the method itself is not new.

Context

Collective case studies first emerged in the 1960s and 1970s as a way to gather qualitative data that went beyond a single case study. Prior to this time, single case studies were often conducted by university researchers. Collective case studies were often done as part of larger projects, funded by governments or

policy research institutes. They typically focused on quantitative research, were at least 2 years in duration, and were expensive to conduct.

While large-scale policy research may be a modern use of collective case study, the method itself appears to have historical roots in 19th-century European sociological research. One documented case of what we would call collective case study was conducted by Frédéric LePlay (1806–1882), a French sociologist who studied cases of working-class families to better understand how each family unit functioned on its own, and from there drew conclusions about how families function within society. LePlay's study was called a *monograph of families*. Although the term *monograph* is rarely used to talk about case studies today, the research methods are essentially the same.

Regardless of the name, the common theme among collective case studies is that they examine the same research question(s) within a number of contexts, using identical methods of data collection and analysis. The researcher wants to understand the individual site and develop a comparison of all the sites. The individual units of study, then, or cases, are examined in situ and can be considered as a collective whole for the analysis phase.

Conceptual Overview and Discussion

This research design is used to undertake a close study of a number of cases that are linked together, either through a common issue or other similarities. The important point is that the cases must share some link or there is no point in them being studied as a collective.

In a collective case study, a common set of research questions is developed to guide the study of each individual case. Each case is treated as its own individual entity, and researchers take an in-depth approach to each one. A collective case study approach is especially useful in social settings such as schools, where the distinctions between the context and the events being observed are sometimes blurred.

It is important to note that case studies are conceptualized within the qualitative paradigm but may include both quantitative and qualitative data. The context in which the research is conducted is considered important and is usually discussed in the results of the research. Robert Yin

notes that what makes case study different from a quantitative or experimental study is that in case study the phenomenon under study is examined within the context, and not artificially taken outside of the context in which it exists and observed as though it were devoid of context.

One purpose of the large-scale policy projects of the 1960s and 1970s was that they provided the opportunity to integrate quantitative and qualitative data, and allowed for cross-case comparisons. This can make the overall research project quite extensive in scope, and a potentially expensive endeavor.

The notion of cross-case comparisons is important for collective case study because what differentiates this from traditional single case study is that the researcher is interested in, and preoccupied by, commonalities among the cases. The cases are linked and bound by their common characteristics, which are what the researcher is most interested in exploring and understanding. Robert Stake refers to this grouping as a *quintain*. The term quintain offers a concise way to refer to the data that are most pertinent to this type of research. Rather than focusing on single events or contexts, in collective case study the researcher is seeking a better understanding of the quintain or collection of categorically bounded cases.

It is worth underscoring that even though the quintain or collection is the main focus of the research, each case is still studied in an in-depth manner. The careful and thorough examination of each individual case within the quintain is essential, and the desire and need to understand each individual case deeply is not sacrificed for the sake of gathering surface data quickly. This means that a collective case study requires a thorough and methodical approach, not to mention significant resources in terms of the researcher's time and funding. This brings us to some of the limitations of this type of work.

Limitations

Collective case studies, by definition, examine at least three distinct cases. Though there is no limit to the number of cases that could potentially be studied, the scope of the study is often limited by both the timeline of the project and the budget. Although a collection may include all possible

cases, it is more likely that it will include a selection of cases.

Though some argue that because case studies are bounded by time and space, and the very nature of case study involves researching in a current context, it is more likely that budget, rather than space, would limit a collective case study. Cases could be investigated in a variety of locales, provided properly trained researchers could be found. Securing funding for large-scale collective case research in a global context could be a significant challenge or limitation.

In addition to budgeting financial resources, a collective case study must also budget its time carefully. The length of time spent at any given site should be more or less equal to the amount of time spent at other sites. If significantly more time is spent at one site, it may limit the amount of time available to study other sites, which creates the potential to compromise the quality of the data collected.

Due to the scope of the research, it is not always possible for one person alone to collect all the data required for the study. Different researchers may be required at different sites, supervised by one principal investigator. In order to ensure validity, it is essential that all researchers are briefed and trained in similar ways. This helps to ensure as much control as possible not only of the data collected but also of the ways in which they are collected, a process that helps ensure validity for comparative purposes. These are important limitations to acknowledge in a collective case study project. The richness of the data collected and the potential for deeply understanding a phenomenon in its context are the benefits of the results of research that involves complex methodology.

Application

To conduct a collective case study, the researcher must first identify the research question(s) to be explored. Consideration of those questions then provides an appreciation of the type of research methodology required. If it is apparent that the study poses questions that may be studied effectively in more than three subsets of a common environment, then the next phase of the research requires the identification of the quintain.

For example, a researcher exploring the ways in which teachers hinder or facilitate the academic

success of minority culture children may be conducted in several classrooms (the sites) that are categorically bound together (the school). To conduct the study in such a large number of sites requires a team of researchers, each of whom must be trained to ask the same major and probing research questions, observe and record the same observations in the same way, administer the same survey questionnaires, and collect the same examples of written policy documentation.

Cross-site comparison occurs by the research team taking these individual data sets and combining them for quintain analysis. The data are integrated and analyzed as a whole rather than as separate sets. The results are presented as a collective case study.

Critical Summary

Collective case studies examine at least three cases in any given study. Though some studies involve dozens of cases, the scope of the study is often dictated both by the type of data desired and the timeline and budget for the project. Collective case studies are typically long-term projects of at least a year and may often be expensive to conduct, due to the number of cases involved and the number of researchers who must be trained. Such studies deal with present-day issues and data, and use living subjects to collect data, often through observation, interviews, questionnaires, or other methods. They may collect qualitative or quantitative evidence, or a combination of these. The main reason for conducting a collective case study is to explore crosscase comparisons and draw generalizations from the entire collection to understand the phenomenon deeply from a variety of perspectives.

J. Tim Goddard

See also Case Study and Theoretical Science; Case Study Protocol; Case Study Research in Education; Comparative Case Study; Multi-Site Case Study

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COLONIALISM

Colonialism is an influential interdisciplinary concept with a long history. It has figured prominently as an analytical framework in the extensive literature in many fields of study, including history, sociology, anthropology, political science, and international relations. The term colonialism derives from the Greek word for colony. Originally, a colony referred to the permanent settlement of a place by a group of people who migrated there from their homeland. During the late 19th century, the word began to be used to refer to all distant territories subject to the direct rule of a foreign, usually European, state. It is this meaning that is most commonly used today. Colonialism is the political rule or control of peoples and territories by other states, whether or not this is accompanied by permanent settlement. When there is significant permanent settlement, such colonies are referred to as settler colonies.

Conceptual Overview and Discussion

Colonial rule is usually long distance; it involves the imposition of political control by one country over another separate territory. Colonialism is closely related to the word *imperialism*, which describes the domination by one people or state (or a group of them) over others in a manner advantageous to the former and usually at the expense of the latter. But the two are to be distinguished. Colonialism is only one form imperialism might

take. Imperialism can take various forms of indirect control or domination without colonies. The concept of imperialism also implies international politics where great powers exert control over weaker states and/or manipulate colonies as part of international power struggles.

Empire-building through colonial expansion has a long history, dating back to ancient times; an example is the Roman Empire. Before the 16th century, the main type of empire was a land-based empire that grew through the acquisition of territories by expansion over land. This kind of empire was created by various people in different parts of the world. Seaborne colonial empires, by contrast, are more recent. They emerged in the 16th century and lasted until the mid-20th century. They are created through the acquisition of colonies overseas, and they span the oceans.

Most of the overseas empires of the past 500 years were European. A number of writers argue that European colonialism was different from the creation of empires in earlier times in terms of motives, main agents, and outcomes. It was connected to the rise of capitalism, which originated in Europe. Some scholars also distinguish different stages of European colonialism and relate these stages to the development of capitalism. The main distinction made is between the last great wave of colonial expansion in the late 19th century and the colonialism of the previous two centuries.

The colonialism of the late 19th century was the child of industrial capitalism and intensified competition between rival industrialized capitalist states. It differed from its precursors in significant ways, including the type and volume of overseas investment, new markets for industrial goods, the kinds of raw materials and infrastructure demanded by industrializing European economies, and the increased intervention of states in their national economies and its impact on the form of colonial rule. The relationship between colonialism and capitalism has been the subject of voluminous research. Some scholars dispute the distinctiveness of the colonialism of the late 19th century, arguing that it was not qualitatively different from the colonialism of previous eras.

The period from the end of the Second World War to the late 1960s saw the rapid decolonization of the overseas European empires. Many colonized territories in Asia and Africa gained their political

independence. However, they were left with the legacies of colonialism that made it very difficult to create stable political systems and self-sustaining economies. Colonialism was not only political and economic but also cultural. It was supported by, and propagated, ideologies of the racial and cultural superiority of the colonizer. Colonialism transformed ideas, images, and representations in both colonized and colonizing societies, although the extent and significance of this transformation has been disputed.

Application

Research of the European colonies flourished in the late 19th and early 20th centuries. Much of this research was commissioned by the colonial administrations. The objective was to assist colonial policy. Academics also conducted various studies of colonial societies. Case study was one of the major research methods used. An interesting example is the University of London anthropologist Phyllis M. Kaberry's Women of the Grassfields: A Study of the Economic Position of Women in Bamenda, British Cameroons. This 1952 study appeared in the British Colonial Office's Colonial Research Publication series.

Scholarly interest in colonialism waned in the period from the 1950s to the 1970s as many former colonies became independent. In the first stage following decolonization, the focus of intellectual attention shifted to the modernization of the new states. Colonialism was no longer an attractive subject. In the second stage, scholars started to pay more attention to the persistent economic and technological dependence of the former colonies on Western industrialized countries despite their political independence. Thus neocolonialism and dependency became a flourishing field of study during the 1960s and 1970s. The underlying question concerned the inability of the former colonies to achieve development and gain their economic independence. According to studies of neocolonial relations and dependency situations, the roots of underdevelopment in Latin America, Africa, and Asia are found in the earlier European colonial domination and exploitation of these regions.

Extensive research has been done on the economic effects of European colonialism for the colonized, and some is based on the case study method. One such case study is Rhoda Howard's

Colonialism and Underdevelopment in Ghana, published in 1978. Many studies show that colonial rule transformed local economies into sources of cheap raw materials and labor to feed European industries. In cases where precolonial economies were ripe for an industrial take-off, as in India, the colonial system destroyed local industries. The result was the underdevelopment of colonized countries. The colonized countries may have been undeveloped before their colonization, but they became underdeveloped as a result of their colonial exploitation. Not all scholars agree with these negative assessments; they instead highlight the positive economic contributions of colonial rule. They point out that the colonized countries owed their modern infrastructure to colonial administrations. Colonial rule encouraged urbanization and put in place modern education and legal systems.

The term neocolonialism first came into use in the 1950s to describe the continuation of the colonial domination of former colonies without direct political rule. The Third All-African People's Conference of 1961 produced an influential list of neocolonial features, including the following: installation of client regimes; inheritance of the same administrative units created by the former colonial powers; economic and financial dependence after political independence; and the use of economic aid and military grants as a substitute for direct colonial rule. Neocolonialism is also used to describe the influence of transnational corporations and international financial institutions in the politics and economics of the less developed countries. In his 1975 book *Underdevelopment in* Kenya: The Political Economy of Neo-Colonialism, Colin Leys offers a comprehensive case study of the mechanisms of neocolonial domination in postindependence Kenya.

The term *neocolonialism* was mostly abandoned in the 1980s, partly because of its polemical use in Cold War politics. However, it can still provide us with a useful explanatory framework for those cases where a foreign power exercises significant control over a less powerful state in a manner that is functionally similar to the system of colonialism but without formal colonial administration.

A group of Marxist-influenced scholars formulated dependency theory during the 1960s and 1970s, the object of which was to explain the underdevelopment of the global South and the gap

between rich and poor countries. Dependency theory encompasses the notion of neocolonialism, but it emphasizes the structure of the world capitalist economy, which is characterized by a divide between the periphery and the core. The founding dependency theorists include Fernando Henrique Cardaso, Enzo Faletto, and André Gunder Frank. Their main concern was to understand why Latin America remained underdeveloped vis-à-vis the advanced capitalist countries despite its political decolonization long time ago. Dependency theory was later applied to Asia and Africa as well. Some dependency analysts conducted case studies of underdeveloped countries or regions. A seminal case study of Africa from the perspective of dependency theory is Walter Rodney's How Europe Underdeveloped Africa, published in 1972.

Dependency theory argues that the underdevelopment of periphery countries is due to their involvement with the capitalist countries in the core. Dependency is described by asymmetrical links between countries. But it is not merely a relationship of dependence between countries. It connotes the extent to which the economic and political dynamics in the periphery are conditioned by the world capitalist economy dominated by the core countries. Dependency often involves collaboration of the periphery elites with the ruling elites and transnational corporations of the core. Such collaboration might benefit the elites in the periphery; but it also reinforces the periphery's dependency. Dependency theory was subjected to a barrage of criticism. It was accused of attaching too much importance to international factors and not enough attention to domestic structures in underdeveloped countries. It was also criticized for focusing too much on capitalism and not enough on unequal power among states in explaining dependency. It could not explain the successful development of several East Asian countries in recent decades. Nonetheless, the questions raised by dependency theory remain relevant for many postcolonial states.

Postcolonialism emerged as an influential perspective in the humanities and social sciences over the past couple of decades. The prefix *post* indicates postcolonialism's reliance on postpositivist approaches to knowledge rather than the end of colonial practices. Postcolonial scholars look at how discursive constructions shape our understandings of the world. Their starting point is the

global hierarchies of control. Most postcolonial studies focus on the persistence of colonial forms of power in the contemporary world. They emphasize the intersectionality of race, gender, class, and colonial power. The key thesis is that colonial forms of domination rely on the social production of racial, gender, and class differences. While examining the continuity of colonial forms of power, postcolonial scholars are also interested in diverse forms of resistance by subaltern peoples to colonial domination.

Critical Summary

Many decades after the end of colonial empires, there is a major revival of scholarly interest in colonialism. This growing stream of research crosses the disciplinary boundaries of anthropology, history, international relations, and literature. The past two decades have seen numerous publications in colonial studies, which examine various aspects of the colonial world. Topics range from indigenous-European settler encounters to the representations of women in colonial literature. This resurgence of scholarship on colonial studies is mainly as a result of the influence of new intellectual approaches that question the earlier, mostly Eurocentric studies of the colonial world. The recent body of research calls into question the narratives that represent the colonized societies as static and backward. However, like postcolonial studies, which are concerned with the legacies of colonialism as well as the different forms of contesting (neo)colonial domination, the recent scholarship on colonial studies mostly takes a cultural perspective and focuses on the cultural aspects of colonial situations. What is usually neglected is colonialism as a system of economic exploitation and political control.

Nilgun Onder

See also Class Analysis; Imperialism; Native Points of View; Othering; Postcolonialism; Power

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COMMUNICATIVE ACTION

Communicative action, the key to Jürgen Habermas's work, refers to the interaction of at least two people who seek to reach an understanding about something so that they can coordinate their interpretation of a situation and their plans of action by way of mutual agreement. Language is presupposed as the medium through which speakers and hearers, situated in the prior context of their own lifeworld(s), can refer within the communicative relation to the objective, social, and subjective worlds and in the process raise validity claims correlative to these world relations.

Conceptual Overview and Discussion

The subject-object relation of the philosophy of consciousness (from Descartes through Kant and Hegel to Smith and Marx), according to Habermas, is now exhausted; hence his "linguistic turn" away from individual action to communicative action and a focus on the communicative relation between people as the core building block for philosophical, social theoretical, and empirical analysis.

It is useful initially to distinguish between *The Theory of Communicative Action*, which is Habermas's mature exposition of his critical theory of society and late modernity, and communicative action itself, which is the point of departure for this theory. The two volumes run to more than 1,200 pages and the reader is referred to Thomas

McCarthy's superb translator's introduction to the 1984 edition for probably the clearest synopsis of the sheer breadth and depth of this major 20th-century work.

At a macrolevel, this theory presents a two-level conceptualization of society that (a) integrates both lifeworld and system approaches; (b) maps a philosophical and social theoretical way out of the aporias and limits within the individualistic subject-object relation by providing a groundbreaking conceptualization of communicative rationality (as distinct from individual means-end, instrumental, or strategic conceptions of rationality), that draws on "language-in-use" and speech act theory; and finally, in genuine Frankfurt School tradition, (c) provides a sophisticated means of addressing the pathologies of late modernity in suggesting that the original emancipatory intent of the Enlightenment project is not exhausted but simply unfinished and that this theory identifies the pathways for substantive analysis, explanation, and human intervention to ameliorate or redress such pathologies, thus leading to a more critical redirection of this project.

The first and third points above are briefly addressed here, simply to note the macrolevel of analysis before moving more deeply into discussing the procedural dynamics of communicative action. The financial crisis, as it unfolded during September 2008, may be viewed through the macro lens of the theory of communicative action as it relates to the lifeworld and the steering systems of money and power. In very simple terms, and from a political economy and "critical management studies" perspective, a systemic failure was allowed within the banking system and an alliance quickly formed between the elites of both the money and the power systems on how to save extant economic structures from further collapse. Costs of the various "bailouts" of the money system, facilitated by the governmental agents of the administrative power system, were largely burdened on future citizen taxpayers with consequences for their working and private lives in their own particular lifeworlds. These citizens did not cause the pathology, yet private system losses and risks from the mortgage-based financial system were socialized at the expense of the general public and taxpayers. Many critical research questions may be addressed here by drawing on the entire theoretical architectonic of the theory of communicative action at both macro- and microlevels of analysis and from both participant and observer methodological perspectives.

Communicative action is central to the healthy functioning of human lifeworlds: Under the functional aspect of reaching understanding, it serves to transmit and renew cultural knowledge; under the aspect of coordinating action, it serves social integration and the establishment of group solidarity; and under the aspect of socialization, it serves the formation of personal identities. At this microlevel of analysis, communicative action is a twoway dynamic process with three clearly identifiable validity claims related to the objective, social, and subjective worlds. When two or more people communicate with each other using face-to-face speech acts, body language, electronically mediated, or other means of communication, each utterance or speech act that One makes can be implicitly or explicitly accepted or challenged by Other on a simple "Yes" or "No" basis. One is seen as making a claim to validity with each utterance, and Other can either accept or reject this claim.

Assuming the general claim to comprehensibility, the corresponding validity claims of propositional truth/efficacy related to the objective world, normative rightness related to the social world, and sincerity/authenticity related to the subjective world are available. All speech acts, however implicitly, make these three claims, although one may be emphasized more than the other two in any particular situation. Claims in this instance are not settled by recourse to hierarchical authority or power, which may very often be the case in steering system settings, but by providing reasons for or against in the mutual give-and-take of this rational argumentative discourse. This procedural structure can be shown to be universally valid in a specific or particular sense, thus satisfying social scientific requirements for "objectivity" in a postfoundationalist manner. One must stress that only the procedural aspects of the communicative relation are deemed to be universal; communicative actions are always contextual.

Application

Communicative action is grounded in language, speech acts, and argumentation; hence it is open to

empirical investigation. It has generated much theoretical debate in the fields of morality, ethics, religion, justice, democracy, globalization, cosmopolitanism, political economy, organization and management theory, communications, politics, and law. Empirical work in some fields is reasonably developed and in others it remains in its infancy, but the range of possible applications in a globalized and more cosmopolitan world is vast.

The problems that caused the September 2008 financial crisis noted above must have emerged, if in part, in the boardrooms of the financial organizations concerned. Within the field of corporate governance there is much that we still do not know about what really goes on within such boardrooms, mainly due to understandable difficulties with gaining entry for research purposes and issues of confidentiality. The external observer, however, has no access to the meanings inherent in the various talk-based actions within such boardrooms; to access meaning one must get into the communicative actions somehow.

In her "talk-based" ethnographic case study of a board of directors and senior management team "in action" in a manufacturing company, Dalvir Samra-Fredericks provides an exemplar of how communicative action can theoretically inform in terms of its interpretive framework, guide a rigorous and systematic methodology, and lead to substantive research findings in a complex and difficult research area. Routine, daylong monthly board meetings were attended for over a year, and field work included observations, interviews, workshadowing, and audio- and video recordings of "naturally occurring events." Using samples of board dialog from the case study, the validity claims within communicative action are placed at the center of empirical speech-act attention, and provide the tools for a much richer illustration of the skilled nature of the board's interactive routines and behavioral dynamics to be made more transparent. When one observes "boards-inaction," what one sees, according to Samra-Fredericks, are managerial elites talking to each other. Whether in boards, or elsewhere, such conversations are the empirical focus of analysis through the lens of communicative action.

Face-to-face communication ranks highest in terms of communication richness. Since the advent of the Internet much communication is now electronically mediated, and in the developed world, at least, e-mail has now become a taken-for-granted in both systems and lifeworlds. Researchers within the field of information systems were among the first to recognize the potential of, and to apply insights from, the theory of communicative action at both micro- and macrolevels.

Ojelanki K. Ngwenyama and Allen S. Lee's exploration of communication richness in e-mail is explicitly based on this theory where they address the "how" and "what" of communicative practices in a media-use, as distinct from face-to-face, situation. At the microlevel the validity claims within communicative action, based on intensive exploration of one episode of how managers use e-mail, are again the focus of attention. In the process they demonstrate how the intersubjectivist approach may be drawn on to critique individualist-based information richness theory and through empirical illustration present a more theoretically sophisticated definition of communication richness.

The broad critical intent of the theory of communicative action is also made explicit in that instrumental and strategic actions are differentiated from the more discursive form of communicative action. Where a person recognizes instances of distorted communication, for example, someone being latently strategic or not being genuine or sincere, then emancipation becomes possible. In all cases, identifying the relevant validity claim is the key to further analysis and interpretation.

Critical Summary

The theory of communicative action is not a metatheory; it is best viewed, according to Habermas himself, as the beginning of a social theory concerned to continuously validate its own critical standards. The future of this theory and its potential remain, by definition, open. From philosophy through information systems, language, critical management studies, organization and management theory, law, morality, discourse ethics, democracy, and political economy, applications of the theory of communicative action have produced substantive findings. The relations and validity claims within the communicative relation, and the constraints under which they stand, are substantive and real social phenomena. They are, therefore, open to further broad empirical investigations from participant, virtual participant, and observer perspectives in diverse fields.

David O'Donnell

See also Critical Theory; Discourse Ethics; Ethnography

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COMMUNICATIVE FRAMING ANALYSIS

Communicative framing analysis is a procedure that allows researchers to study the framing patterns of multiple stakeholders across different research sites. Following particularly Erving Goffman's work, communicative framing refers to the ways in which stakeholders define what is going on in a given situation by foregrounding specific aspects during their interactions. The procedure was first developed to examine framing within and across a series of intractable environmental conflicts. It allows both a fine-grained analysis of different kinds of framing within a

particular case as well as the investigation of dominant framing patterns across several cases.

Conceptual Overview and Discussion

There are several reasons for using communicative framing analysis. First, it is a mixed methods approach that enables researchers to build a more holistic picture of the phenomenon under investigation. Employing mixed methods ensures that the results are not methodological artifacts and allows researchers to compensate for the weaknesses of one method with the strengths of another. Second, it is especially useful when comparatively little research has been conducted on the phenomenon of study. Third, following Allen Lee's notion of multilevel interpretations, it provides a means for developing first, second-, and third-level interpretations of stakeholders' framing patterns within and across different cases, and thus enables comparative case analysis.

The procedure starts with the conduct of qualitative interviews designed to capture first-level interpretations of the phenomenon under study by the research participants themselves. Next, Barney Glaser and Anselm Strauss's "constant comparative method" of grounded data analysis is employed to develop a set of framing categories that apply within and across the different cases. Standardized frequency counts of these framing categories are then computed for each of the stakeholders based on a quantitative content analysis of their interviews. These counts are subsequently used to conduct a cluster analysis. This analysis enables a third-level interpretation of the ways stakeholders group together across the cases based on their framing similarities. Using this quantitative method increases the study's reliability and validity. Finally, the constant comparative analysis of the interviews is used again to gain more insight into the ways stakeholders in each cluster frame the phenomenon that is investigated. Examining stakeholders' firstlevel interpretations within each cluster generates a more holistic understanding of the phenomenon and lends credence and depth to the study, while at the same time improving the "transferability" of the outcomes to other, similar contexts.

Application

A study by Boris Brummans, Linda Putnam, Barbara Gray, Ralph Hanke, Roy Lewicki, and

Carolyn Wiethoff provides an example of the use of communicative framing analysis. The authors used this procedure to examine how disputants from different stakeholder groups (e.g., farmers, businesspeople, and activists) involved in one of four different intractable environmental conflicts clustered together because they foregrounded similar aspects in their definitions of their conflict situations. The study details the various steps involved in this kind of analysis, entailing the purposive sampling of research participants from the different cases and their classification into stakeholder groups (e.g., farmers, businesspeople, activists); the conduct of semistructured interviews to elicit stakeholders' accounts; the collection of relevant archival data to gain more in-depth insights into the cases; the transcription of the interviews and their open and axial coding to generate "framing categories" that surface regularly in participants' accounts and reveal the specific aspects highlighted by the research participants in their definitions of the situations (e.g., their own identity, the identity of others, power issues); the checking of these inductively derived categories against extant research literature; the conduct of a formal (quantitative) content analysis of the transcripts based on these framing categories; the use of this analysis's outcomes for the conduct of a cluster analysis to determine how research participants from different stakeholder groups form "natural" clusters across the cases based on their framing similarities as well as to determine the dominant framing patterns within each of the clusters; and, finally, the explication of these dominant patterns based on a re-analysis of the interview transcripts.

As Brummans and colleagues' study shows, communicative framing analysis is particularly useful for researchers who want to understand complex, multi-site phenomena that involve various groups of people who view, experience, and enact the world by highlighting different aspects. In so doing, it offers a sophisticated procedure for examining how different groups of people make sense of large-scale phenomena, such as environmental, national, or international conflicts.

Critical Summary

By combining multiple methods, communicative framing analysis provides a robust procedure for studying intricate communicative processes across various groups and research sites. In so doing, it allows insight into the ways people make sense of what is going on in a particular situation and helps explain what joins them together as well as sets them apart. The challenges of this procedure lie especially in finding elegant ways to generate synergy between multiple methods of data collection and analysis, and in the management and interpretation of large volumes of different kinds of data.

Ralph Hanke and Boris H. J. M. Brummans

See also Comparative Case Study; Mixed Methods in Case Study Research; Multiple Sources of Evidence; Statistics, Use of in Case Study

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COMMUNITY OF PRACTICE

How humans acquire knowledge and skills is a central preoccupation for many sociologists and anthropologists concerned with social learning. The term *community of practice* refers to the social context and broader process of social learning and the shared sociocultural practices that characterize specific forms of learning and knowledge acquisition within social groups. The term originated from the work of a few cognitive anthropologists who were engaged with understanding the process of learning through apprenticeship. Jean Lave and

Etienne Wenger are perhaps two of the most notable theorists in this regard, and they coined the term *community of practice* through the development of their ideas about legitimate peripheral participation. Lave and Wenger focused on five forms of apprenticeship (including midwives, meat cutters, tailors, naval quartermasters, and how people become members of an Alcoholics Anonymous group) and were concerned with how people first enter into situations or environments dominated by communities of practitioners already well versed in the rules, tasks, and skills those communities require of them, and the process by which they eventually become practitioners themselves.

Conceptual Overview and Discussion

Newcomers to communities of practice initially engage with them as novices (i.e., their participation is peripheral, but legitimate nonetheless as they are accepted initially as newcomers into the group) and they set about engaging in small tasks and peripheral activities, becoming familiar with them and acquiring along the way the skills and knowledge necessary for becoming fully fledged and socially recognized practitioners themselves. This is dependent on observing the activities of experts, and listening to them and learning from them, which is why the examples and case studies of various forms of apprenticeship serve to illustrate Lave and Wenger's arguments well. To be distant from an expert is to be cut off from the knowledge and tools of that expert, and so learning is ineffective. Newcomers must first begin from a position on the periphery of the group—and on the periphery of ideas—and are then gradually drawn into the center of the group as they acquire skills and knowledge and eventually become experts themselves. This form of legitimate peripheral participation is not confined to formal occupations, but to all forms of activity where novices must acquire the skills and vocabulary to participate as effective members; in other words, how they become socialized and accepted into a group as legitimate and effective members. Lave and Wenger argue that we are all involved in communities of practice, whether it is at home or at work, because we engage in processes of situated learning no matter how formal or informal they may be, or how much commitment is required of us. Thus,

learning to play a sport is also about participating in a community of practice where rules and specific skills, as well as the formal language and vocabulary that also define the activity, mean as much as physical ability if one is to learn a sport and to play and participate in it well.

Central to Lave and Wenger's idea of the community of practice is the concept of situated learning where learning is by practice and doing, or in other words, through active participation where the newcomer, novice, or apprentice learns by being situated within the social context of the activity and its expression. Wenger went on to develop the idea of learning as being central to human identity, and it is only through effective participation in a community, and through engaging in the social practices of the community, that shared identities are continually produced and reproduced. Our engagement with the world and our understanding of it, Wenger argues, is a "negotiation of meaning" that requires active and vigorous participation in social processes.

Application

Lave and Wenger's ideas articulate and develop further theories in sociology and anthropology that have a long history, perhaps beginning with van Gennep's Rites de Passage, and which can be traced through various ethnographic and theoretical writings about the acquisition of personhood and acceptance into various social groups—in short, how people become social and become accepted as members of groups through social learning. Anthropologist Gisli Pàlsson draws on the community of practice idea in his writings about the process of enskilment in the Icelandic fishing industry. Palsson argues that becoming a fisher entails a process of situated learning in that it takes place on the sea, by being out on boats, finding one's sea legs. Yet he also argues that the highly technical (and also business dimensions) of modern fishing mean that the acquisition of skill cannot be just a matter of being on a boat and watching what seasoned fishers do. It also involves formalized learning in fisheries colleges with formalized accreditation. However, being in a warm classroom on land and being on a boat on a stormy sea are both situations where the apprentice fisher is becoming immersed in a community of practice.

Both are examples of systems of apprenticeship through which novices participate in hands-on activities with seasoned and knowledgeable practitioners. What is important, as Lave and Wenger intimate in their writings, is that these relationships are also reproduced through being essential components of a community of practice. A community of practice is a community within which skilled interaction takes place—learning takes place within the context of relationships with people and with people's engagement with the world around them.

In The Perception of the Environment, Tim Ingold's work on the dwelling perspective (itself influenced by the philosophy of Martin Heidegger), draws parallels to Lave and Wenger's arguments in terms of how Ingold sees the person as being inescapably immersed in an environment or lifeworld. Rather than assume that people enter a culture or society to which form and meaning have already been attached, Ingold argues that people continually bring the world into being around them through participation in social and cultural practices. Meaning, argues Ingold, is inherent in the ways in which people engage pragmatically with the constituents of the world. This echoes nicely—and resoundingly—Lave's own arguments in Cognition in Practice that suggest cognition is not something that goes on in people's heads, but is a social activity firmly grounded in a complex of social relations between people as social beings and the world around them.

Critical Summary

Lave and Wenger's ideas have found currency beyond academic concern with learning, knowledge, and skill, and have become particularly attractive to those involved with knowledge management and problem solving in organizations, as well as in education and lifelong learning contexts.

Mark Nuttall

See also Actor-Network Theory; Codifying Social Practices; Complexity; Formative Context; Naturalistic Context; Practice-Oriented Research; Praxis; Self-Confrontation Method; Self-Presentation; Webs of Significance

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COMPARATIVE CASE STUDY

The comparative case study examines in rich detail the context and features of two or more instances of specific phenomena. This form of case study still strives for the "thick description" common in single case studies; however, the goal of comparative case studies is to discover contrasts, similarities, or patterns across the cases. These discoveries may in turn contribute to the development or the confirmation of theory.

Conceptual Overview and Discussion

The comparative case study can achieve any of the principal goals of the general case study approach and is not limited in terms of descriptive, exploratory, or explanatory goals. Within this broad context, the comparative aspect of the case study can have either a qualitative or quantitative focus. Comparative case studies tend toward an examination of the typical rather than the outlier or extreme case. Generally, research into the unusual, rare, or revelatory has not been appropriate for multiple-case designs, simply because selected cases must demonstrate enough commonality to allow for comparison.

Robert Yin, who has written extensively on case study research, states that comparative case studies are multiple experiments and not instances of multiple subjects across a single experiment. In case comparison, several cases serve as replication sites for extension or surfacing of theory. Cases may also be viewed as a replication of the instance or phenomenon, similar to an experiment in a quantitative undertaking. These comparisons can be structured as either between-case or within-case studies. Within-case studies, for example, might include several organizations within a specific

industry, cohorts from a particular educational institution, or negotiations between a single country and several allies.

The comparative case approach uses an iterative analysis of each case with final comparison of emergent themes and explanations. The results of each analysis are not pooled, as the strategy is that of multiple experiments, not multiple sampling. Comparison of cases is post hoc in nature, and may be independent of the level of analysis of the case. A longitudinal design is also possible, with one or more instances or sites serving as separate case studies over time. One variation of this is a pilot study, which Robert Yin has used to define an analytical framework and to refine instruments and research tactics.

The case survey is a variant of the comparative case study that views cases chosen for research as a series of data points from which comparison and analysis will be possible. The case survey produces a sample size of hundreds of cases, from which researchers draw out of the detail of their analysis the critical components or factors that are interesting enough to warrant the study. To find comparable sites for this type of research is challenging in any context, and the depth of detail generated through the case survey produces two complicating effects in this form of the case study: increased effort (translating into costs) and the risk of noncomparability due to variations in significant contextual factors. The case survey represents the worst of a quantitative-qualitative mixed approach, particularly when the factor of interest is unduly simplified in order to make volumes of data more manageable.

Application

The flexibility inherent in between-sites or withinsite designs, and longitudinal or cross-dimension designs that presents multiple occurrences is offset by the nearly impossible challenge of finding perfectly matched cases. The use of multiple instances within one organization greatly reduces the confounding effects of different organization cultures and contexts. Cynthia Hardy, Nelson Phillips, and Thomas Lawrence's study of Mère et Enfant in Palestine (a small, nongovernmental organization [NGO] that provides nutritional services to women and children in Palestine) is an example of a single organization with several, varying collaborative partnerships. The examination of each case high-lighted particular theoretical categories (e.g., strategic, knowledge creation, and influence effects) that were then drawn together through comparison to define a framework and then extend a tripartite theory of interorganization collaboration.

Special characteristics of a specific case are sometimes obvious only in comparison with others, particularly when cases derive from different contexts. Selection of cases based on population characteristics, dependant or independent variables, and measurement levels is an effective point of departure, depending on whether the researcher is pursuing a most-similar or least-similar design. Notwithstanding the qualitative nature of comparative case studies, history, maturation, and instrumentation effects are all dangers in the case study comparison, particularly in time-lagged, cross-case comparisons. Strategies to overcome these include selecting cases from the same organization, same year, same study, or same context.

Comparative case studies are particularly useful for studying organizational change over time. The longitudinal study by Aimin Yan and Barbara Gray that investigates bargaining power in joint ventures illustrates a number of key aspects of this research strategy discussed above. The authors use various forms of data collection, including interviews and archival data, as well as analytic induction in the analysis of each joint venture case sequentially, making incremental comparisons as coding categories appeared in their data. The study limits cases to manufacturing ventures that are widely representative for the sector and that are comparable in terms of duration and access to informants.

Critical Summary

Comparative case studies extend the value of the case study approach through iterative model-building and comparison. The case's rich description on a limited number of variables enables a depth of analysis by providing an opportunity to determine patterns in the data that add or extend the theory application, or enrich and refine the theoretical framework. The challenge is to return to the comparative level for final conclusions and to ensure that the framework for comparison is theoretically sound.

Shelagh Campbell

See also Before-and-After Case Study Design; Bounding the Case; Case Selection; Case-to-Case Synthesis; Case Within a Case

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COMPARING THE CASE STUDY WITH OTHER METHODOLOGIES

Comparing the case study with the experiment in psychology and the survey in sociology reveals three characteristics of qualitative research: research in natural settings, the development of concepts, and a focus on social process. But compared to other qualitative traditions, the design underlying most case studies is quite structured.

Conceptual Overview and Discussion

The experiment lends itself to determining the causal effect of a stimulus or treatment; for instance, the effect of a commercial on opinion, attitude, or behavior. The researcher must be certain the experimental factor is present during the experiment and that other factors do not occur during the experiment. Therefore a research setting is artificially created in which a single factor can be manipulated while other factors are excluded. This is mostly realized by matching subjects into pairs and randomly assigning one to the treatment group and the other to the control group. By collecting data from both groups on behavioral and attitudinal variables before and after the treatment, and by

comparing the results, the researcher determines indications of a causal effect of the stimulus on the dependent variable (attitude, behavior).

An experiment is characterized by a large amount of control by the researcher on the research setting (laboratory situation, exclusion of other factors, and induction of a stimulus), the composition of the research groups, and the activity in the research situation (administration of questionnaires, looking at films).

The survey is the most widely used standardized form of sociological research, especially in the domain of public opinion research. The aim of the survey is to obtain information about individual attitudes, values, opinions, circumstances, and behaviors in large populations by using questionnaires. Instead of questioning a population as a whole, a relatively large random sample of the population is drawn as representative, from which inferences are made about the larger population.

The first aim of a survey is a statistical description of the characteristics of a population. Survey data enable researchers to present an overview of the incidence or prevalence of certain opinions or attitudes and to establish relationships with other characteristics or variables such as income, sex, or age. Besides a general overview, following from the distribution of research topics and a statistical elaboration of existing relationships, a more detailed description of specific relationships in segments or subgroups of the larger population may follow. Such a cross-sectional survey representing a population at one certain point in time has limitations for conclusions about change or the causes of differences between subgroups of populations.

The case study is a research design with a long history in the social sciences, especially in those traditions that hold a participative view on social life and organization. Well-known examples are *Street Corner Society* by William Foote Whyte and *When Prophecy Fails* by Leon Festinger, Henry Riecken, and Stanley Schachter. The case study is the basic design for anthropological field work in non-Western cultures, as it represents an extended examination of the culture, or way of life, of a particular group of people.

A case study is an in-depth qualitative research strategy used for a single instance or event, although comparison of several or multiple cases is not uncommon. The case as unit is investigated by participation in its natural context, for instance a street gang in one neighborhood (Whyte), or one particular sect (Festinger). Participant observation of the natural course of events enhances doing justice to the complexity of the phenomenon under study, that is, the entanglement of distinct elements in the situation. Although many case studies require an extensive exploration of the research setting, most case studies, like all qualitative research strategies, are informed by elaborated substantive and theoretical ideas or concepts.

Based on these global descriptions of three research designs, more specific characteristics of the case study will now be clarified.

Naturalness

Compared to the designs of the experiment and survey, case studies are conducted in the context of real life. Typical of experiments is an artificial approximation of a behavioral setting, which accounts for the main weakness of this design with respect to the external validity of the results. It may be hard to generalize or even translate conclusions beyond the laboratory. Survey designs also do not coincide with everyday life in which people discuss circumstances, exchange opinions, and react to significant others. The interview is an exceptional situation shaped by a stranger (the researcher) by means of a questionnaire. As a design, both experiment and survey concentrate on exact measurement under controlled conditions, as a result of which the contextual meaning of these measurements is secondary.

Choosing the case study design is a choice for maintaining the naturalness of the research situation and the natural course of events. The point of departure is the specific case: Data are collected and analyzed in a way that respects the integrity of the situation under study. As a result, the boundaries of case, phenomena, and context are not clearly evident and must be elaborated within the inquiry itself. Reconstruction of social processes and the elaboration of an analytical framework are two other distinctive characteristics of the case study.

Social Process

The case study design enables close investigation of dynamic social processes as they evolve in the research setting. A static perspective, on the other hand, is typical of the survey design, in which data collection takes place in a short period of time and it is assumed that changes in social reality did not occur between the first and last interviews. Because processes relate only to the opinions of respondents about changes in their own life, the collected data are perceived as the condition of a population as a whole at one moment in time. The experiment also pays little attention to processes. Although causal effects are the main focus—that is, changes in opinion, attitude, or behavior—controlled laboratory experiments only simulate the social processes involved.

Case studies concentrate on the description of social processes and the explanation of their dynamics. Doing justice to the dynamic character of everyday life is essential when conducting a case study. This can be achieved by participating in the ongoing process and reconstructing the perspectives of the actors involved. The complexity of the situation requires a triangulation of viewpoints and observations. A single perspective is brought together with observations made by the researcher and linked up with perspectives of others participating in the situation or in the background to enable different layers of the situation to emerge.

This causes data collection generally to be longitudinal and mostly extended over several months, and in some cases even longer.

Analytical Elaboration

At the start of the inquiry, the case study researcher lacks a clear vision of the processes involved in the research situation. This makes the point of departure of a case study different from that of experiment and survey. Typical for those designs is a theoretically and empirically elaborated framework based on detailed knowledge from previous research.

To be meaningful, a survey must be founded on prior knowledge of the population to enable sampling, and upon knowledge of existing variations of the phenomena to enable an adequate construction of measurements, and lastly upon knowledge of relevant circumstances and background information.

The experiment is also based on prior knowledge of the population, the stimuli, and other factors influencing the phenomena under study and

how to measure them. Without such knowledge there is no way to know how to match groups or which influences should be eliminated. Apart from theoretical elaboration and derivation of hypotheses, both research designs need grounding in extended empirical knowledge before research is actually conducted.

Case studies start from the opposite direction. First, the researcher must get acquainted with the case, the context and significant processes, to be able to define appropriate procedures and ordering categories. This means that the case study approach consists of several phases of field inquiry and exploration aiming to complement analytical lacunae and to develop methodological procedures. Both this explorative attitude as well as the dynamic character of the phenomenon under study stress the necessity of employing different methods to be able to gain a meaningful and detailed picture of it. The researcher participates in the situation, takes field notes, talks informally with informants, conducts interviews, consults experts in the field, uses archives, and makes inventories of what is going on in the situation. These different data not only allow for different perspectives on the daily course of life, but the data can also correct and supplement each other. By deliberately using different types of information (triangulation), researchers improve the quality of their observations.

Application

Prototypical case studies are to be found in organization research. Many of these studies have a practical background: a problem that is assumed to be related to the (inter)actions of the stakeholders in the organization. Analytically speaking, the research is focused on the perspectives that guide the actions of all participants on the work floor.

This type of diagnostic organizational research applies a rather structured research design using concurrent explanations of the problematic situation. After a short and intensive exploration phase to produce an inventory of the main units and groups and their perspectives on the problem, observations and analyses subsequently focus on assessing the relevance of the provisory explanations (causes and conditions). Progress in this kind of practical research is stimulated by the use of a research group to speed up observations and

facilitate analytical developments through brainstorming sessions. Many data are produced by using standard instruments. In the course of analysis, comparisons between and within subunits clarify the roles of conditions and elaborate a casespecific theory.

Many case studies have a diagnostic or evaluative objective, mostly related to specific situations in organizations. Others, for instance the study by Leon Festinger, start with an explorative objective to find out what happens to a group when a prophecy, such as of the end of the world, fails. Case studies may also have the objective of testing a hypothesis, as in William Foote Whyte's study of the social structure of a slum. In studies with a more theoretical objective, the case-specific analysis is supplemented by a comparative analysis of strategically selected cases, known as multiple case study, to test the general relevance of the conditions that were found.

Some authors use the term *case study* to refer to all forms of qualitative research. Although all qualitative research subscribes to naturalness, social processes, and analytical elaboration, not all qualitative research aims at developing case-specific explanations. Qualitative research comes in many different forms, three of which are often mentioned as a variety of the case study approach: ethnographic study, life history and biographical research, and grounded theory research.

The Ethnographic Study

Ethnography aims at reconstruction and description of (an element of) the culture of a social group or society. It is sometimes qualified as an extended case study because of the need for extensive and long-standing participation in everyday routines to master the language and cultural meaning system. Compared to the practical prototype of the case study, the design of ethnographic research is more open as it misses the focus on a specific problematic situation.

The ethnologist tries to gain an insider's view and is free to use every opportunity to discover the principles behind everyday routines. This may be qualified as a process of socialization, making the ethnography a rather personal undertaking. The main research strategy is participation in all kinds of situations, making observations, taking notes and talking to members, reading documents, or taking photographs. During field work, the researcher mainly writes reflections on the increasing data; the abundance of observations will later be analyzed systematically from different angles defined by the researcher.

Life History and Biographical Research

Case studies of (mostly professional) people aim to illustrate relevant perspectives from participants in problematic situations. The life history approach has its roots in the Chicago School investigations of community life and deviant behavior. A perfect example is the study by William Thomas and Florian Znaniecki of letters that immigrants in Chicago wrote to their families in Poland. The objective of life history research is to illustrate the effects (e.g., changes in values) of general societal processes (e.g., immigration) on the daily lives of participants. Apart from extensive interviewing, data can be drawn from letters, documents, and self-reports as these are produced in their everyday context; they all contribute to the versatility of biographical research.

By supplementing the perspective of the central case with those from participants in the immediate social context and comparing these with other cases and their contexts, these subjective views can be reformulated in terms of a general theory of the problematic situation under study.

Grounded Theory Research

The grounded theory approach aims at formulating theory by extensive study, comparing a relatively large number of cases of a certain phenomena. Grounded theory research starts in an exploratory way with sensitizing concepts that direct the initial observation and analysis. Theory is developed through an iterative process of alternating phases of observation, analysis (coding), and reflection on analytical categories. Core methodological principles are theoretical sampling of new instances of and constant comparison of all situations within a relevant category to test, correct, or redefine the developing theory.

Because the research objective expresses an analytical focus on the development of *general* concepts and substantive theories, grounded theory

research deviates from the case study design that aims at description and explanations that are specific for the case in relation to its context.

Critical Summary

Typical for case study methodology is that research is conducted in a real-life context and that investigations produce a case-specific theory of the natural development of the processes involved. Although case study research may start with the objective to test specified hypotheses, the greater part of these studies focus on diagnosis or evaluation of situations in a specific organizational context. They are informed by elaborated theoretical concepts and substantive ideas, and use standard instruments for quantitative measurement as well as qualitative data gathering methods.

The case study can therefore be considered one of the most structured qualitative research strategies: essential exploration followed by focused data collection and analysis.

Ellen Hijmans and Fred Wester

See also Case Study Research in Anthropology; Chicago School; Ethnography; Extended Case Method; Grounded Theory; Life History; Naturalistic Inquiry; Practice-Oriented Research; Triangulation

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COMPLEXITY

Complexity refers to the level of social organization of a particular integrated system under investigation. Complexity means more than just a "complicated" organization or pattern of endeavor. Complex phenomena cannot be understood by examining their constituent parts using simplistic reductions. Complex cases are "alive," purposeful, dynamic, evolving, spontaneous, adaptable, unpredictable, and self-organized. Dennis Sumara and Brent Davis describe complex cases as having an integrity that transcends their components.

Conceptual Overview and Discussion

To be understood in any profound way, a case must be examined organically, taking into account the complex systems in which it is nested. A "complicated" case, in contrast, can be disassembled, understood with sufficient knowledge of its components, and then reassembled without disturbing its functioning. A strength of the case study approach is its ability to holistically investigate complex social events and to examine broadly based complex systemic sets of causes and effects. Reality is complex, and the case method has the ability to deal with the full variety of evidence that a researcher may collect in order to peek into an intricate and unique social system.

Complexity is also a set of concepts that attempts to describe this intricate and particular level of organization, integrating biological, cognitive, and social dimensions of examination. It is a theoretical perspective and methodological approach to vibrant, complex, and unstable systems, their conditions, interrelationships, and spaces.

Complexity theory contributes several useful theoretical perspectives that can assist researchers employing a case approach. As Robert Stake argues, "issues as conceptual structures" can shape primary research questions in order to direct attention to a case's complexity and contextuality.

• Groups, communities, and organizations are complex adaptive systems: Complex adaptive systems contain "agents," which can be people, processes, or computer systems. Agents are able to exchange information with their environment and,

through this exchange, learn, adapt, and change their behavior. Agents interact on a local level, but such patterns are nonlinear, in that small "causes" may have large effects and large "causes" may have small effects. This theoretical lens encourages researchers to focus on the ongoing evolution of people interacting with elements within their environment.

- Systems are composed of a series of complex responsive processes: This refers to the actions of human bodies as they interact with one another so that a person interacts both with the social and, at the same time, with the self. Because these two interactive dimensions happen at once, individual minds/selves form the social while being formed by the social at the same time. Therefore, the social and the individual are the same phenomenon. This concept calls the researcher's attention to the patterns of relationships and the further patterns of interaction these relationships produce.
- Agents and systems are co-emergent and have co-implicating relationships: Since individuals and the systems they create are continually learning and adapting, and since the social and the self are formed at the same time through complex responsive processes, individuals and systems are intimately connected and coevolve, mutually influencing their growth and development. Though cases are, as Stake suggests, generally bounded systems, this theoretical perspective highlights the unique reciprocal, interactive exchanges between active agents and the environments in which they are embedded, and the difficulty of definitively stating where the case ends and the environment or context begins.

Application

Complexity theory contends that only a partial view of any system can be captured. A researcher using a case approach must attend to the conditions in which the system emerges and make sense of the living experiences of interaction. Systems do have elements, but it is the interdependencies and interactions among the elements that create the unique and particular whole. So the researcher using complexity needs to examine and illuminate the interrelationships and interdependencies among the elements, including individuals, processes, and forms of communication, as well as the unity of the system itself.

The following are additional dimensions to consider when systematically investigating a complex case.

The Importance of Context and History. Robert Yin states that a case study is an empirical inquiry involving a phenomenon embedded within its reallife context. Complex systems have a history. They evolve through time, and their past is co-responsible for their present. Patterns of human interaction produce further patterns of interaction. Past history and experiences are added on and therefore potentially shape future trajectory. History includes practices incorporated into a system's patterns of relating, embodied knowledge within networks and nodes, and a sequencing of the system's structural changes. In describing a case's history and context, significant events are important, but understanding also requires paying attention to the configuration of relationships over time as well as the environment in which the system lives.

Permeable or Open Boundaries. Complex adaptive systems are open systems. Individuals interact with others in the environment, extending interaction and communication beyond the boundaries of the system. Both the system and the environment in which it is embedded change through these interactions. These changes ripple out, spilling into other systems. Though a case is defined with certain, clear boundaries, researchers should keep in mind that these boundaries are not rigid and static, but porous and bidirectional, and, in a sense, arbitrarily set.

Nonlinear Dynamics. Nonlinearity refers to the principle that the whole is not necessarily equal to the sum of its parts, and that a relatively small change can lead to significantly different system states. Since small changes are amplified by feedback loops (input-output circular processes that allow complex systems to change their structure through their own activity), this produces complex patterns of unanticipated consequences that make it impossible to predict long-term behavior. Positive feedback amplifies itself by strengthening the processes that gave rise to it; negative feedback weakens them. For the case researcher this may mean the use of process tracing, proposed by Alexander George and Andrew Bennett, in an effort to examine nonlinear complexity in detail.

Emergence. Emergence is the arising of new coherent properties, patterns, and structures when systems undergo a process of reorganization. This bottom-up phenomenon comes from patterns of behavior enacted by agents in an informal network of relationships that continually grows, changes, and adapts to new situations. Agents residing in one level produce behaviors that lay a level above them. Making sense of the dynamic processes that give rise to and sustain evolving complex systems requires going beyond the notion of cause and effect. In emergent systems, global patterns cannot be reduced to individual behavior.

Spaces of Possibility. Systems interact in ways that change each of them, resulting in the growth of complexity from relatively simple beginnings. The enlargement of the space of possibility arises from moving toward such complexity. When the case system approaches a far-from-equilibrium state, it is subject to spontaneous and dramatic reorganizations. These points of instability, or bifurcation points, allow the system to branch off into an entirely new state where new forms of order may emerge. For the researcher, this means examining, in depth, the various transitional points within a system's evolution.

Nodes and Networks. These are the formal or informal subgroups of individuals that act as interconnections and function as centers of activity. Nodes rapidly come together, separate, and reform in different permutations according to need; networks tend to maintain long-term relationships throughout the rest of the system. Case researchers illuminate the connectivity and the configuration of relationships within these nodes and networks in an effort to map complex responsive processes.

Webs of Significance. This phrase, coined by Clifford Geertz, refers to the influence of culture on human behavior and the construction of social systems. Not only do human beings create and modify their culture, but culture also serves to define the social world. We cannot escape our cultures. We create and are suspended in them. The case researcher using complexity theory, therefore, focuses the analysis on an interpretive search for meaning within the relational nodes and webs of complex responsive processes.

Critical Summary

A complex social phenomenon cannot be understood by reducing it to its parts. Rather, a more holistic approach is called for. Complexity is a theoretical perspective that attempts to respond to this understanding. Case studies viewed through this lens pose a challenge to researchers since cases are dynamic and constantly responding to the influences of culture and environment. Researchers must be mindful of these influences since they are integral to understanding the cases.

Rosemary C. Reilly and Warren Linds

See also Ecological Perspectives; Webs of Significance

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COMPUTER-BASED ANALYSIS OF QUALITATIVE DATA: ATLAS.TI

ATLAS.ti, which runs on Microsoft Windows, is a software program designed to support the researcher in the interpretation and analysis of a variety of data sources, including text, audio, and images. Data can be coded, searched, retrieved, codes defined, related codes or documents grouped together, conceptual diagrams of the emerging understanding of the data created, memos written, and tables of numerical data abstracted and exported to statistical software such as SPSS.

Conceptual Overview and Discussion

A case study project is created in ATLAS.ti as a hermeneutic unit (HU) that bundles together all relevant data sources, codes, conceptual linkages, memos, and comments. The data included in case study research (e.g., text, audio, video, photographs, diagrams, and maps) are imported into the software and organized, managed, coded, and analyzed in the HU. Data files are referred to as primary documents (PDs). Each PD is numbered in the order in which it is imported into ATLAS.ti—for example, P1, P2. In case study research, where a number of PDs may constitute a case, the numerical ordering of PDs has an important data management function. The PDs for a specific case can be grouped together by importing them concurrently. If all PDs for a specific case are not imported concurrently but are scattered among other PDs, the numerical position of the PDs can be easily changed to group them as cases.

PDs may also be organized by cases using a function called "families." A family is a cluster of documents or codes or memos. Within-case and across-case clusters of PDs can also be created. For example, in a case study focused on one or more schools, each school may constitute a case. All data related to a specific school can be clustered into a family tagged with the name of the school. The PDs of within-case variables such as teachers and students can be clustered in PD families labeled "Teachers" and "Students," respectively, separating the PDs according to cases and variables within cases. Across-case groupings can be similarly clustered. Grouping PDs in families facilitates a focus on a specific case and/or a specific variable set, unencumbered by the presence of PDs that do not belong to that case or variable.

In ATLAS.ti, data must be coded to access further functions of the software. Coding refers to the assigning of a PD to one or more codes. A code is a tag or label that best describes the data to which it is assigned. A margin display alongside a text- or image-based PD provides a visual cue of coding as it occurs. There is no margin display for video or audio PDs.

There are at least two types of codes that organize the data: data management codes are mutually exclusive, and describe the characteristics of a PD; for example, "adolescent" or "female." Characteristics of a PD are often sociodemographic variables. The whole PD is assigned to the relevant data management codes. Conceptual codes assign meaning drawn from the data (inductive) or from theory (deductive), and are generally not mutually exclusive. Segments of a PD (e.g., lines of text, portions of a photograph, seconds of an audio file, or frames of a video) are assigned to multiple conceptual codes.

Codes are organized in a code pane. The "groundedness" of a code refers to the amount of data coded to a specific code. How grounded a code is in the data is indicated by a number immediately next to the code in the code pane, indicating how many times the code has been assigned in the data. A table for all codes illustrating their groundedness can be exported from the software to Excel or SPSS. A definition for each code, to increase coder reliability, can be inserted in the blank comment space beneath the code in the code pane.

Searching for words in text PDs can assist the coding process by quickly finding specific words that may signify a code. Automatic coding makes use of the word search function to assign words-incontext to one or more codes automatically. The context (a word, sentence, paragraph, multiple paragraphs, or the whole document) can be selected when "scoping" the search. Word search and automatic coding functions cannot be used with non-text PDs such as photographs, maps, audio, and video files.

As coding progresses, relationships among the codes may become apparent. Codes that are related may be grouped together in code families, with each family designating a theme or category. By selecting a specific code family, access is provided to only the codes in that theme or category. Attention can be focused on the codes that constitute the code family without being distracted by other codes. An in-depth, focused analysis of a case by a theme can be facilitated by selecting the PD family that represents the case (excluding all other PDs) and the code family representing a theme (excluding all other codes and themes).

Code and PD families can be used to delimit or scope a search using the query tool in ATLAS.ti. To make the best use of the query tool for searches,

the PDs must be coded. Assigning PDs to both data management and conceptual codes facilitates the retrieval of data. The clustering of PDs into families allows searches to be limited to a case, as well as to within- and across-case searches. The results of a search are reliant on the quality of coding of PDs. Boolean searches combine, intersect, and subtract coded data. Proximity searches show relationships between coded data such as whether data overlap, enclose, or are near to other coded data. Search and retrieval enables further in-depth exploration of the data.

Writing is an important aspect of case study analysis, and within ATLAS.ti, comments and notes may be written in the form of memos, providing a chronological trail of developing thoughts and concepts. By writing within the software, new comparisons, insights, themes, and relationships between codes may emerge, deepening initial understandings and explanations.

Two types of display in ATLAS.ti that are useful for case study research are matrices or tables, and semantic networks. Matrices of codes, showing coding as number of words or number of times a section of a PD has been assigned to a code, can be exported from ATLAS.ti to a statistical package. The network view tool allows the researcher to assign relationships between codes. Codes and memos are easily imported or created in the network view. Causal, associative, and other relationships between codes can be assigned. New relationship types can be created in the Relationship Editor. An iterative and interactive process of working between network views and the analytic text of memos can lead to the discovery of further relationships, understandings, and explanations.

A hypertext function links selected sections of one PD to selected sections of the same PD and/or other PDs. These links can be traversed by following the symbols denoting hypertext links in the display margin, or can be visually displayed in the network view. Causal, associative, and other relationships between hyperlinked segments can be assigned.

Data can be exported from ATLAS.ti. Output including the text assigned to one or more codes, references to nontext data, PD lists, codes and their definitions, and memos can be brought to screen, sent to file, or printed.

Application

Vaishali Patel and Anne Riley used ATLAS.ti to organize, manage, and analyze data in a multiple case study examining use of Outcomes Management System (OMS) data in decision making by staff in out-of-home childcare programs. Type of staff and service setting were defined as cases, and crosscase comparison of OMS data usage was undertaken. PDs were grouped according to case and, following coding in the software, reports displaying selections of text assigned to specific codes were generated and read to further the fragmenting of codes. Memos documented emerging patterns, meanings, and understandings. Additional reports of text coded to two or more codes were generated and patterns in the data identified, compared, integrated, and summarized. The authors' reported an iterative and cyclical process of coding, memo development, reports, and further reading of PDs to deepen the case study analysis.

Critical Summary

ATLAS.ti is a storage, organizational, management, and analysis tool for case study research. A variety of data types can be imported into ATLAS.ti, enriching the study. PDs can be grouped together in cases, and memos and codes grouped thematically, facilitating within- and across-case analysis. Codes are not linked to any other code until the researcher specifically creates the relationship, differing from many software where hierarchical relationships between codes are encouraged. Codes and themes can be easily interrogated in ATLAS.ti, enhancing analysis and the construction of theory.

B. Raewyn Bassett

See also Inductivism; Iterative; Reliability; Visual Research Methods; Within-Case Analysis

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COMPUTER-BASED ANALYSIS OF QUALITATIVE DATA: CAITA (COMPUTER-ASSISTED INTERPRETIVE TEXTUAL ANALYSIS)

Computer-assisted qualitative data analysis uses computer hardware and software to support qualitative data analysis tasks, including search and recovery of data, representation of data, summarizing and interpretation of themes, and exploration of meanings and patterns found in data. Qualitative data are primarily textual data, for example, newspaper articles, organizational documents, interview transcripts, and narratives. Computer-based analysis of qualitative data can involve two forms of analysis: Quantitative analysis of qualitative data uses computers to count key words or codes and is called computer-based content analysis. Qualitative analysis of qualitative data uses nonmathematical processes to explore data. One specific approach to qualitative analysis of qualitative data is computer-assisted interpretive textual analysis, which explores members' meanings in qualitative data through theoretical sampling, computer software, and expansion analysis of data displays.

Conceptual Overview and Discussion

Quantitative analysis of qualitative data uses computer technology to quantify qualitative data and to perform content analysis. Computer-based content analysis of qualitative data involves breaking textual data down into segments, then coding or classifying each segment. Researchers then use computer technology to count key words or codes and to compose operational indicators of variables. The quantitative measures are used to test or evaluate hypotheses. This reflects a positivistic paradigm where quantitative variables are created and relations among variables are used in a deductive manner to test or confirm theory.

The second form of computer-based analysis of qualitative data uses qualitative analysis involving nonmathematical processes of interpretation to understand the meanings or patterns in qualitative data. The central task of qualitative analysis is to understand the meaning of the text (i.e., qualitative

data). The process is often inductive and not well structured. Computer technology cannot "do" qualitative analysis of data for researchers because the process is not algorithmic or mechanical and cannot be computerized. Computers do routine, clerical tasks and assist in data storage, searching, and display of patterns in data. But the researcher must interpret data.

Computer technology can assist in qualitative analysis of qualitative data by facilitating basic tasks of qualitative research, including making notes, editing notes and data, coding data, storing data, searching and retrieving particular segments of data, linking data, creating memos about data, and linking these memos to data segments. Software can generate data displays that place selected or retrieved data in condensed or organized formats, and it can help map data graphically. Software can also help researchers draw conclusions, build theory, and write reports. This assistance is done by simplification of routine tasks of data management and creation of data displays to help reveal or confirm patterns in data.

Computer-assisted interpretive textual analysis (CAITA) is a specific form of computer-based qualitative analysis that seeks to understand the meaning qualitative data hold for social actors and to develop "second-order" theory that builds on or subsumes members' "first-order" theories. The focus is thus on induction or theory building from data. Second-order theory development involves recovering themes and meanings from data, providing thick descriptions of how concepts operate in data, and grounding theory in data.

CAITA uses computers to create textual databases, to do mechanical and clerical tasks related to data coding and retrieval, to support theoretical sampling, and to create data displays for expansion analysis. These processes are elaborated below.

A first task in CAITA is to select data that provide a meaningful corpus or body of information about a phenomenon. Such data may be constituted by an interview or set of interviews, a document such as an organizational report, a series of newspaper articles on a particular topic or incident, the transcript of a public hearing, or a combination of such data. The next task is to create a textual database of the data. This simply means creating a machine-readable electronic data file, one often formatted for specialized software, that

can be subjected to qualitative analysis processes including search and retrieval processes and coding processes.

A more explicit focus for research is then developed. Through reflection, induction, coding of data, or grounded theory the researcher surfaces important themes and issues found in data that are conceptually meaningful. Generally, qualitative data are "coded" by adding tags or labels that can be electronically linked to particular segments of the textual data base. In CAITA, the researcher focuses on locating key words that occur naturally in the text and act as naturally occurring "tags" or codes that indicate themes present in data. Once data are coded, or key words noted, key data passages can be located and interpreted in detail. Data can also be used to ensure that emerging themes and concepts are accurately represented by data.

Data displays are then created using computer software to produce organized, formatted tables that assemble all examples of key concepts at work in the database. These data displays or tables are interpreted using expansion analysis—a finegrained, hermeneutic process for writing descriptions of how contextual and conceptual features of interest operate in data segments. This analysis links members' discourse, theories, and concepts to more abstract discourse, theories, and concepts of scholars and thereby inductively creates second-order understandings of members' first-order discourse or text.

Application

An example of CAITA is provided by a case study done by Robert P. Gephart, Jr., that explored sensemaking during a public hearing into a fatal accident. The accident involved a leak from an oil and gas pipeline that unexpectedly caught fire and burned five men, two of whom subsequently died.

The researcher was familiar with industry operations and attended a public hearing concerning the accident. Sensemaking became the general focus for the case study since inquiry documents and testimony by organizational stakeholders sought to understand and interpret the causes and implications of the event, that is, to "make sense" of the accident.

The researcher obtained a detailed record of all testimony at the hearing, made field notes of

inquiry events, and obtained inquiry board policies and reports, company documents, and newspaper articles concerning the accident and the inquiry. A textual database was created for these data with particular focus on the 1,765-page record of hearing testimony. The database software provided an index of all words used and offered search, retrieval, and data display functions for all words used. In addition, structural reference codes entered into the database allowed search, retrieval, and display of text in terms of speaker, position, organization, and other important issues.

Careful reflection on the data revealed themes including a focus on why the company failed to "flare" or voluntarily ignite the leak to prevent an unplanned fire. *Flaring* became a key word. A theoretically meaningful sample of testimony was developed by search and retrieval of all discussions of flaring for key groups at the inquiry: management, workers, and the hearing board. Key issues related to flaring were sensemaking, risk, responsibility, and blame for the decision to avoid flaring.

Two types of data display were created. Textual exhibits were detailed segments of data that narrate the disaster and inquiry and focus on flaring. Textual tables were developed containing each line in which a key word occurred in relation to key themes of risk, responsibility, and blame for flaring.

Expansion analysis was written for each data display to show how theoretical concepts operated in data. Sensemaking concepts were employed to understand how risk, responsibility, and blame were used to explain organizational actions. Propositions concerning sensemaking during public inquiries were inductively developed to reflect patterns in data and generalize the case to other settings.

Critical Summary

Computer technology does not enact qualitative analysis of qualitative data but it can greatly aid such analysis. The common expectation that computers can do qualitative analysis can foster three problems. First, researchers may be so focused on software they fail to learn or use basic qualitative research practices. Second, the ease of computer processes such as search and display or counting of key words may distract researchers from careful interpretation of data. Third, conceptual assumptions and operations of software may constrain the

kinds of analysis performed on data. Alternatively, qualitative researchers may avoid using computers in analysis since they believe computers distort data and interpretations. CAITA can support routine and clerical tasks all qualitative researchers employ. It can also help exhaustively analyze case study data and display significant variations within data. Awareness of the limitations and strengths of qualitative computing can help researchers realize the significant advantages of the approach.

Robert P. Gephart, Jr.

See also Grounded Theory; Inductivism

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COMPUTER-BASED ANALYSIS OF QUALITATIVE DATA: KWALITAN

The computer program Kwalitan, which runs on PC/Windows, originated in the late 1980s, when it was designed at the University of Nijmegen, the Netherlands, as a support tool for students and researchers who were engaged in doing qualitative analyses in the tradition of the grounded theory approach. In the past years Kwalitan has undergone several metamorphoses that have resulted in a new version of the program in which user requests have been incorporated as much as possible. While Kwalitan was developed from the perspective of the grounded theory approach, most of the functions in Kwalitan are so basic and

generic that Kwalitan can also be used when analyzing qualitative material using other approaches.

Conceptual Overview and Discussion

It is becoming inconceivable to perform a qualitative analysis without the use of a computer, especially when having to deal with qualitative material from various sources, as in many case studies. Doing a qualitative analysis implies that a researcher discovers relevant aspects in the material, processes these aspects on a conceptual level, checks the results of this conceptualization against the original material, and makes comparisons between documents/cases. And this process is iterated many times before the researcher is convinced that he or she has captured the content of the empirical material sufficiently on the conceptual level.

In other words, the researcher must constantly switch between the empirical level of the (raw) material and the conceptual level. During this process several techniques are applied, such as several types of coding, summarizing, rephrasing, clustering, categorizing, searching for underlying dimensions, and pattern recognition. These activities can be compared to quantitative techniques such as cluster analysis, factor analysis, or regression analysis, but at a conceptual level, without statistics to help the researcher in interpreting and making decisions. Most researchers would not consider doing these quantitative techniques without the use of appropriate computer support. In the same way, in the case of qualitative analysis, where these analytical processes take place in the minds of the researcher, computer support is indispensable.

Several computer programs have been developed to support the researcher in doing these types of qualitative procedures. Some of these programs are described and illustrated in this encyclopedia. This contribution focuses on one of these computer programs, Kwalitan.

The Organization of the Data in Kwalitan

All original data that have to be analyzed (interviews, documents, observation protocols) and all data that are generated by the researcher during the analysis process (e.g., memos, codes, word lists) are stored in one single file, referred to as the project.

Inside the project, the data are ordered in work files (for different groups of respondents or for different types of data), documents (the interviews or the observation protocols), and segments.

The text of documents is divided into segments (before or during the analysis) by the researcher. A segment is a part of the text that logically belongs together, like a question and its answer, or a paragraph in a document. These segments have several functions during the analysis. To mention two of them: They help the researcher to focus on specific parts in the text, and they function as the coding context—that is, during the coding process they provide the context for interpreting a specific text fragment.

Above it was mentioned that Kwalitan deals with text-based data. In addition, it is also possible to have graphic input (e.g., pictures, political cartoons, art objects) and (short) audio or video fragments as material to be analyzed.

This entry describes some of the features and functions of Kwalitan. It relates them to some of the basic characteristics of qualitative analysis. For a more extended description of Kwalitan, for details about its functions, and for the technical details, readers are referred to the Kwalitan Web site: www.kwalitan.nl (Dutch) or www.kwalitan.nl/engels/index.html (English).

Levels of Analysis in Qualitative Analysis

Qualitative analysis is about making inferences on the conceptual level, based on empirical data. This process is steered by research questions. In order to answer the research questions, the researcher may use data and information at different levels:

- The words as spoken in the interview or written in the documents; these data coincide with the empirical level
- The codes devised and applied by the researcher and indicating his or her interpretation of the
- The concepts developed by the researcher based on the codes and capturing central themes and concepts
- The reflections of the researcher on the material, the codes, the concepts, and the process, as written down in memos

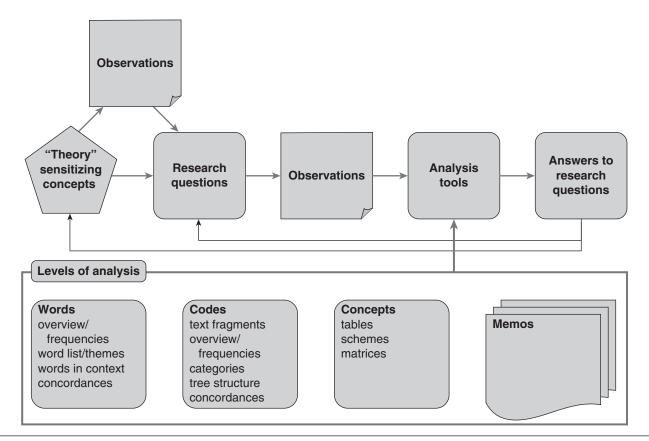


Figure I Four levels of data in the qualitative analysis process

Source: Peters, V., & Wester, F. (2007). How qualitative software may support the qualitative analysis process. Quality & Quantity, 41, 635–659. With kind permission of Springer Science and Business Media.

At each of these levels, specific tools and functions are required to support the researcher. Figure 1 summarizes the broad outline of a qualitative analysis, shows the four levels of data to be used in the analysis, and indicates a few of the tools.

Kwalitan offers support at all four levels of analysis. These functions are briefly discussed in the next section.

Functions of Kwalitan

The Level of Words

Analyzing material at the level of words stays very close by the empirical level, since it deals with raw, noninterpreted material. Content analysis focuses on this level, but also for other types of qualitative analysis investigating the original data may help the researcher to become familiar with the material, identify the specific terms that the respondents use; in addition, it may reveal differences between several documents. This investigation may help the researcher to formulate new research questions.

Kwalitan supports the analysis at this level by providing overviews of the words used, composing lists of important words to be used to compare documents, computing concordances between words, and displaying specific words in their (direct) context (key word in context).

The Level of Codes

Codes are the basic elements for many analyses. Codes (also referred to as key words) capture the researcher's interpretation of the text. They come in many types, depending on the phase of the analysis: they may refer directly to elements in the texts, to underlying concepts or dimensions, or to patterns. Codes make a connection between the conceptual level and the empirical level. Their function is on the one hand that they help the researcher in conceptualizing, and on the other hand they provide a means for retrieving data that are related to a specific concept.

Kwalitan has several functions that help in analyzing at the level of words:

- Overviews of codes, indicating which codes occur and in what frequency
- Overviews of text fragments that are linked to specific codes
- Matrices of codes, displaying which codes occur in which segments or documents
- Matrices of concordance, indicating which codes occur in the same segment

Both types of matrices can be exported to an Excel spreadsheet or an SPSS data file for further analysis.

The Level of Concepts

In the process of conceptualizing, the researcher tries to create a conceptual model of the object under study. This implies discovering the relevant concepts and investigating the relation between these concepts by identifying relevant themes, dimensions, or categories that underlie the individual codes, and the relationships between the categories and concepts. To support these actions Kwalitan has three tools:

- Categories: codes that refer to the same underlying concept or theme are brought together in categories
- Hierarchic tree structure: codes, words, and other terms are ordered in a hierarchic tree, unveiling the complex structure of concepts
- Tables: to summarize what is said in specific documents about a selection of relevant themes to help clarify the concepts further

These tools can be used in either a bottom-up or a top-down way.

The Level of Memos

The use of memos is stressed by practically all method books on qualitative analysis. Kwalitan supports the use of memos. It offers the possibility to create several types of memos (default types are the concept memos, profile memos, theory memos, and method memos). These memos are easily accessible from all parts of the program, so that the researcher has them always at hand and can always add new information.

Memos are important for storing information, but they may also be considered as the object of analysis. The researcher used memos for writing the results of his or her reflection on the steps and procedures in the analysis; memos are reflections on interpretations and actions. Analyzing one's own memos and their reconceptualization may be very helpful in gaining insight into the data and the results of the analysis. Kwalitan supports the analysis of memos.

In addition to the functions mentioned, Kwalitan has many functions that support the researcher in setting up projects, maintaining the data, making backups, and other features that are necessary to run a qualitative research project.

Critical Summary

Computer programs like Kwalitan are indispensable for qualitative analysis. The complexity of this type of analysis requires support by a specialized set of tools, provided by, among others, Kwalitan. However, Kwalitan and other computer programs remain only tools. Of paramount importance in addition to computer support is a thorough knowledge of qualitative methodology and its procedures. What good is a tool if you do not know what to use the tool for?

The fundamental problems encountered by qualitative researchers are not in the realm of dealing with computer programs (most are very user friendly), but rather in the methodological background of the analyses. Devising powerful codes, transforming one's initial codes to a more abstract level, using categories properly, and writing good accounts in one's memos requires much more thought and effort than questions like where to find and how to deal with codes, categories, or memos in the program. Practice shows, however, that many (beginning) researchers are concerned about whether they should use a computer program for support, and which program will be the best (or the easiest to handle, or the cheapest). Kwalitan is designed as a supportive program; it is not prescriptive concerning the steps to follow. In fact, that is one of the strengths of Kwalitan (and comparable programs), since it can be applied in a variety of research traditions. But this also implies that the user should have clear ideas about how to conduct the analysis, and that is why methodological knowledge is even more indispensable than a program for computer-based analysis of qualitative data.

Vincent Peters

See also Computer-Based Analysis of Qualitative Data: ATLAS.ti; Computer-Based Analysis of Qualitative Data: CAITA (Computer-Assisted Interpretive Textual Analysis); Computer-Based Analysis of Qualitative Data: MAXQDA 2007; Computer-Based Analysis of Qualitative Data: NVIVO; Textual Analysis

Further Readings

CAQDAS Networking Project: Computer-assisted qualitative data analysis: http://caqdas.soc.surrey.ac.uk Corbin, J., & Strauss, A. (2008). *Basics of qualitative research* (3rd ed.). Thousand Oaks, CA: Sage. Kwalitan: http://www.kwalitan.nl

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Computer-Based Analysis of Qualitative Data: MAXQDA 2007

Computer-assisted qualitative data analysis (CAQDAS) software has become more common in recent years, with various programs available. Such software programs differ in ways such as the types of data that can be analyzed, how data are coded and managed, and how results are presented visually. Because each program has distinctive features, some researchers have argued it is difficult to declare any one software program superior to others. Rather, what software to use will depend on researchers' specific needs and goals. MAXQDA 2007 is the most recent version of a program called MAXQDA ("MAX" named after Max Weber, the famous German sociologist; "QDA" stands for qualitative data analysis). This software program is for PC/Windows computers and is appropriate for textually based case study research. It provides a means of organizing multiple data sources into

one file and offers multiple ways to analyze and manage data. This entry focuses on describing the main features of the program. Various screen shots of the program can be seen at MAXQDA's Web site (www.maxqda.com/screenshots).

Conceptual Overview and Discussion

MAXQDA 2007 saves all study documents into a file called a "project." In a project, all files are combined into one data file with the file extension ".mx3." To begin a project, a file name is entered and saved in the desired location, and then all relevant study documents are imported into the project. This system design is described as an "internal database" because all documents are kept together within the program, as compared to an "external database" in which a program connects to data files located outside of its software.

Documents imported into MAXQDA are text based and must be saved in rich text format (file extension of ".rtf"). If an object such as a bitmap picture is embedded in a text file, it will be seen only if a specific option in the software is chosen prior to importing the file. However, MAXQDA's coding capabilities of nontext-based objects is limited (ATLAS.ti can analyze data in graphic or pictorial format).

Once a project's name is saved, the MAXQDA screen appears, with four windows on the screen. The four windows are the program's default interface; however, any window can be closed and reopened when desired. The upper left quadrant is called the *document system*. This window shows the files that have been imported into a project. Given that case study research can involve multiple data sources to analyze a unit of analysis, this system may be particularly helpful because different categories of files, called *text groups*, can be created. For example, there may be a section or text group for in-depth interviews, another text group for newspaper archives, and a third text group for an organization's internal documents.

The upper right-hand quadrant is called the *text browser*. The text browser shows one text file or document (e.g., a transcript) at a time. In this window, codes and memos are attached to segments of text. The text can also be edited if necessary (note: changes made anywhere in the program are automatically saved). A text file is opened by going to the document system window and right-clicking on

its name. Right-clicking opens up a new window, and choosing "open text" results in the text appearing in the text browser window. Within this window, two empty columns will appear to the left of the text. One column is for assigning codes to text segments; the other column is for creating memos.

MAXQDA provides several ways to create and assign codes, which are strings up to 64 characters long (e.g., for a study on caregiving, initial codes might be "withdrawing from friends," "having difficulty sleeping," or "leaving work early"). Such codes form the basis for eventual categorization and conceptualization. The assigning of codes to segments takes place in the text browser window, but codes may be created in both the text browser window and/or the *code system* window, which is located in the bottom left quadrant of the screen.

A benefit of MAXQDA is that the coding system and text currently being coded can be viewed at the same time. All codes are listed and maintained in the code system window. As with any software program, it is important to note that codes are created by the researcher rather than automatically created by the software. Coding can be hierarchical; MAXQDA allows for up to 10 levels to be created, thus codes can have subcodes within them. In addition, once developed, codes can be deleted, changed, and moved around within the code system window.

Different colors can be assigned to codes. Colors are chosen in ways that are meaningful to the study. For example, if data have been collected in focus group interviews, different colors can identify different people speaking. Similarly, assorted colored codes may represent diverse emotions or actions. Patterns of colored coding may be analyzed later with MAXQDA's visual tools, such as *TextPortraits* or the *Code Sequence Viewer*.

As previously mentioned, a column in the text browser window is available for creating memos, which are attached to coded segments. Memos can also be created in the document system window (attached to a document) and code system window (attached to a code). The development of a researcher's thoughts about issues such as method, categorization, and theorization can be captured in these memos, which form the basis for formal research reports. Right-clicking in a memo column where the memo is to be placed opens up a window in which the memo is then written. Memos can be up to 32 pages long, and options include giving it a

specific name, identifying the author of the memo, linking the memo to specific codes, and dating the memo. In addition, coded segments can be copied and pasted into the memo. Memos are identified in the project by small yellow "Post-it note" symbols. After a memo is created, it can be revised or developed further by right-clicking to reopen it. Simply holding the computer's mouse over a memo symbol also brings up the memo's information.

The final window, located in the bottom right quadrant, is the retrieved segments window. In this window, coded segments can be compared to each other. To view coded segments, a simple procedure of activation is followed. Activation tells the program what codes to examine and from which text files. This process occurs by right-clicking on a text file(s) and a code(s) and choosing "activate" for each one. After activation, all coded segments for the specified codes and text files appear in the retrieved segments window. This window is instrumental for the constant comparison technique, in which multiple indicators of a code are compared to each other to make sure they represent the same concept. Coding consistency can also be checked by comparing coded segments from one code to coded segments for another code.

Additional features assist with descriptive coding, content analysis, data management, printing, visual data representation, and teamwork. For example, with the attributes function, descriptive coding is entered in a matrix, and then text files can be activated and analyzed on the basis of certain attributes (e.g., gender, geographical location). The attributes matrix can also be exported into SPSS (Statistical Package for the Social Sciences). Content analysis is performed with the *lexical search* function. Memos are managed in the memo manager and can be exported out of the program. Coded transcripts can be printed with their coding identified to the left of the text. Graphical model building occurs with MAXMAPS. Finally, a recent advancement is MAXODA Reader, a free software program that allows researchers who do not have the software program to view a project (but not edit it). This is particularly helpful when only some members of a research team have access to the software.

Critical Summary

Advancements in CAQDAS software have changed how case study analysis can be conducted, and multiple options are available in a variety of software programs. MAXQDA 2007's user interface results in easy organization of and access to multiple textually based data sources. This program also has numerous options for finely tuned coding, data management, visual data analysis, and visual presentation of findings.

Áine M. Humble

See also Computer-Based Analysis of Qualitative Data: ATLAS.ti; Computer-Based Analysis of Qualitative Data: CAITA (Computer-Assisted Interpretive Textual Analysis); Computer-Based Analysis of Qualitative Data: Kwalitan; Computer-Based Analysis of Qualitative Data: NVIVO; Textual Analysis

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COMPUTER-BASED ANALYSIS OF QUALITATIVE DATA: NVIVO

NVIVO is one of a number of software programs available for the organization, management, and analysis of text, image, and audio data. Data can be transcribed, coded, searched, and retrieved in the software. Memos, cases, attributes, matrices, charts, and models of data can be created during the analysis process, providing a number of useful functions for case study research. It works on a PC/Windows platform.

Conceptual Overview and Discussion

The NVIVO workspace is organized into three *views*. The *navigation view* allows access to all components of the project. The *list view* provides a list of folders obtained by clicking on a specific button in navigation view. Clicking on a folder provides a list of items within that folder. Clicking on an item within a folder presents the item content in *detail view*, where it can be explored and analyzed.

NVIVO facilitates the use of a variety of data sources including text documents, portable document format (.pdf), and audio, video, and image files. Upon import, a wave file is assigned to each audio and video file. Audio and video can be transcribed after import or an existing transcript can be imported and assigned to the audio or video source. Time codes corresponding to the wave file may be applied to the transcript.

Data sources are coded to *nodes*. A node represents and bears the label of a code, category, or concept, and includes the relevant references to the document source(s). A number of different node options exist in NVIVO. *Free nodes* stand alone; *tree nodes* are hierarchically linked codes, concepts, and categories; *case nodes* group data by specific entities or cases such as individuals or organizations; and *relationships* connect items in the case study. Free and tree nodes may include *in vivo* nodes where the label applied to the node(s) is derived from the words of case study participants. Relevant characteristics or *attributes* such as age, gender, and income can be assigned to case nodes for comparison and contrast within and/or across cases.

Data are assigned to nodes by *coding* conceptually similar selections of text together. Coding can be done manually, by highlighting text, or by framing an image or a time segment of an audio/ video wave file and assigning it to a node. Coding can be automated using paragraph numbers in text documents, time codes of audio files, the log rows of a photograph, and/or Microsoft Word heading styles in text documents. A further coding method, *text search*, automatically retrieves and codes specific strings of characters in text documents.

"Scribblings in the margin" and comments on emerging concepts are captured in *annotations* and *memos*. Specific text selections in a document can be annotated. Blue highlight in the document denotes the annotated text selection. Intended as brief notes, annotations may be read, edited, deleted, and/or reviewed. Memos can be created in the software, or in a word processor and imported into NVIVO. Larger than annotations, memos may capture emerging thoughts about concepts and theories, comment on specific documents or cases, and explain or comment on the use of the software or research methods. Memos stand alone or can be linked to the data and nodes to which they apply.

Within- and across-case analyses are facilitated in NVIVO with a variety of search and retrieval tools called *queries*, enabling the researcher to ask questions, or to test hunches or emerging theory. Queries include Boolean (and, or, not) and proximity (near, preceding, surrounding) searches. They can be previewed to scope the retrieval prior to saving the results, or can be retrieved as a node that, except for matrix queries, can be further coded and/or searched. Coding queries search and retrieve all coding at a node or all data assigned to a specific attribute. A more complex coding query will retrieve data coded to multiple nodes and/or by multiple attributes. A matrix coding query provides a paired comparison of multiple nodes and/or attributes as a numeric table. Clicking on any cell in the table retrieves the text, visual, and/or audio data from which the numeral was derived. Visual cues to patterns in the data may emerge in a matrix coding query table. A compound query retrieves a specific string of characters (words, phrases) and coding to nodes, combining two types of search and retrieval, text search and coding queries. The coder comparison query measures the consistency of multiple team members' coding by paired comparison across some or all nodes and/or source data. A Kappa coefficient and/or percentage agreement score between pairs of coders is derived.

Visually displayed data in case study analysis encourage reflection and focus on specific aspects of one or more cases. A check of hunches and theories, clarification of the analysis, pattern identification, and presentation of the study to an audience are also facilitated by visual displays. Data display tools in NVIVO include models, charts, and coding stripes that can be printed and/or exported. A *model* is a semantic map of all or part of the case study. Items such as nodes and documents from the project can be imported into the

modeling tool, and/or new items created by dragging and dropping shapes into the model and labeling them. Models may be static or dynamic, the latter changing with any related change in the analysis. Links between items are constructed in the analysis process, for example, hierarchically linked nodes or relationship links. The *chart* tool provides a visual overview of the analysis in bar graphs and pie, bubble, and radar charts. Coding, nodes, cases, attributes, and matrix queries can be charted. Coding stripes display coded source data, useful for tracking coding as it is done and for sharing and discussing coding among team members. Stripes of solid color represent different nodes and provide an overview of the intensity of coding at any selection in the data source. Where two data sources occur side by side in detail view, such as an audio wave file and its transcript, both a solid and a shadow coding display are provided. Solid colored coding stripes denote coding in the specific data source, such as the wave file, while shaded coding stripes denote coding in the second data source, for example, the transcript. A further stripe for coding density sits adjacent to the data source. Gradations from white to gray to black indicate none through to large amounts of coding at any point in the data source. Coding stripes can be shared in hard copy among team members.

NVIVO provides an audit trail of the case study project with the use of summaries that can be exported and/or printed from the software. A project summary provides a numerical count of all folders and items in the project, as well as when each item was created and modified, and by whom. A source summary gives a numerical coding count from each source document, and the size of the document in words, paragraphs, time segments, or dimensions. A node summary provides definitions of nodes written by the researcher, and for each node, a table with type of source, percentage of source document, duration (audio), rows (images), and words and paragraphs (text documents) coded. Summaries of relationships, attributes, and coding can also be derived from the software. Regular use of such summaries provides an audit trail of the case study project.

Application

Christine Jakobsen and William McLaughlin use an early version of NVIVO software to organize, manage, and code interview transcripts from their single case study examining cross-disciplinary integration processes in the Interior Columbia Basin Ecosystem Management Project. Although video data collected by the researchers could not be included in the version of NVIVO they used, with the recent update of the software, video can now be coded alongside other data sources. The researchers applied an iterative and inductive coding process. Pattern coding followed descriptive coding to thematically cluster codes. Codes were defined to increase coder consistency. Peer debriefing and member checking increased analytic reliability. Memos were used to reflect on emerging concepts and research processes. All facets of the analysis could be traced back from queries, memos, and nodes to data sources in the software.

Critical Summary

NVIVO is an organizational and analysis tool for case study research. Hierarchical tree nodes group related codes; free nodes encourage exploration of stand-alone codes. Case nodes reference case data, and attributes describe case characteristics. Case nodes and attributes facilitate within- and cross-case comparisons using the query tools, and visual displays such as matrices and models provide an overview, as well as potential analytic directions.

B. Raewyn Bassett

See also Cognitive Mapping; Content Analysis; Conversation Analysis; Interpreting Results; Iterative; Visual Research Methods

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CONCATENATED THEORY

Concatenation is, at once, a longitudinal research process and the resulting set of field studies that are linked together, as it were, in a chain, leading to cumulative, often formal, grounded theory. Studies near the beginning of the chain are wholly or dominantly exploratory in scope. Each study, or link, in the chain examines or at times reexamines a related group, activity, or social process or aspect of a broader category of groups or social processes.

Conceptual Overview and Discussion

An enduring criticism of the case study as a social scientific method is its limited capacity for generalizing findings. It is argued that, in a single case, insufficient variety exists from which to form valid generalizations. True, some case studies are not intended to be generalized. An analysis of an important author, politician, community, environmental disaster, or scientific advance, for example, could be mounted for no other reason than to understand the subject of investigation. Here, generalizing beyond the case is of little interest.

Meanwhile, other case studies are conceived of as vehicles for generalization. A main goal of these studies is, through well-designed, in-depth analysis, either to discover a set of tentative generalizations about heretofore unstudied phenomena or to help validate tentative generalizations established in earlier exploratory research. Whichever goal, the problem remains the same: Concatenated research is required to fully validate emergent generalizations and their coalescence into grounded theory.

Where this metaphor of a chain of studies becomes inadequate is in its failure to suggest the accretive nature of properly executed, concatenated exploration. In the metaphor of the chain, each link is equally important. Whereas in scientific concatenation the studies in the chain are not only linked, they are also predicated on one another. That is, later studies are guided, in significant measure, by what was found in earlier research in the same area as well as by the methods used and the samples examined there. Thus each link plays a somewhat different part in the growing body of research and in the emerging grounded theory. Furthermore, the earlier studies only *guide* later

exploration; they do not control it to the point where discovery is constrained by preconceptions.

A long-standing problem in case study research, which it shares with other exploratory methods designed to beget generalizations, is that concatenation only rarely occurs, or if it occurs, the process stops long before completion. There are several reasons for this failure, one of the most important being that neither the idea of concatenation nor its necessity is well understood among exploratory researchers. The term itself, by which awareness of the process and its importance might be raised, is of relatively recent origin, dating to a 1992 paper by Robert A. Stebbins.

It may be said for case studies, as well as other discovery methodologies, that enthusiasm among social scientists for concatenated exploration remains as weak today as it was in 1976 when John Lofland wrote that qualitative researchers have published relatively little about how their inquiries might cumulate or be consolidated into larger wholes. Instead, each of their studies tends to be an individual picture standing more or less alone. He noted that each is informed by a shared perspective, but not by any strict sense of specific contribution to a developing, clearly articulated theory. Part of the problem, Lofland concluded, was a dearth of studies that could be consolidated in this manner. Over 30 years later this lack is still evident.

Exceptions to this indictment do nonetheless exist and should be acknowledged to demonstrate that concatenated exploration is not only desirable but also possible. A collection of experiences in the field, edited by William B. Shaffir and Robert A. Stebbins, contains a small number of examples, each consisting of a short description with bibliographic references. Included here is Steven J. Taylor's concatenated work on persons with mental retardation, which rests, in part, on case studies.

Application

Retaining the open-endedness of inquiry as it evolves through the concatenation process is a central consideration, especially as the emergent grounded theory becomes, with each passing study, more refined, complex, and conceptually valid. For, in a way, that theory comes to act as a paradigm in itself, albeit one highly reflective of the samples

studied to date. The trick is to ensure that the emerging concepts and generalizations are not, as long as the research approach is exploratory, treated as "givens," as truths no longer needing empirical revision and validation. That is, researchers working toward the goal of concatenation in a particular area will still treat the generalizations that have come down to them from previous studies as tentative, as something they would expect to find given certain conditions (these seem often to be demographic), while remaining on the watch for new or contradictory findings from the present study.

The same goes for the use of generic, or overarching, concepts, which also gain clarity, breadth, and validity as concatenation continues. In fact, for both concepts and generalizations, this is the most effective way to ensure validity of exploratory work, efforts to do so in individual studies being much less convincing. The concepts and generalizations must be embraced tentatively; always considered subject to revision in the face of possible observations warranting such change.

Critical Summary

Concatenation is a research process and the resulting set of field studies that are linked together in a chain leading to cumulative, often formal, grounded theory. To the extent case studies are conceived of as vehicles for generalization, concatenated research is required to fully validate emergent generalizations and their coalescence into grounded theory. Unfortunately, concatenation only rarely occurs, or if it occurs, the process stops long before completion.

Robert A. Stebbins

See also Comparative Case Study; Ethnography; Exploratory Case Study; Generalizability; Grounded Theory; Sensitizing Concepts

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CONCEPT MAPPING

Concept mapping is a technique for representing a set of concept meanings that are unique to a specific subject. These concept meanings are pictorially arranged on a map that consists of a network of nodes and links. The concept meanings are placed in the nodes while words to describe the relationship between nodes are placed on the links. Joseph Novak defines a *concept* as a perceived regularity in events or objects designated by a label. A concept is a word, phrase, or term used to express an idea.

Conceptual Overview and Discussion

The concept map is a tool that was developed in the 1970s by Cornell University professor Joseph Novak in his research course for organizing and representing knowledge. Concept maps allow their creators to identify visually what they know about a concept and how the ideas related to the concept are connected. The theoretical underpinnings for the tool are based on David Ausubel's assimilation of learning theory. This theory is based on the proposition that meaningful learning and recall take place through the assimilation of new concepts and ideas into what is already known by a learner, that is, into the conceptual framework that the learner already holds. Ausubel refers to this process as meaningful learning; new ideas or concepts are linked with previously acquired knowledge. One of the goals in the development of concept maps is to promote meaningful learning.

Either an individual or a group of people can produce a concept map. Concept mapping can be done for several purposes: to generate ideas, to design a complex structure, to communicate complex ideas, to aid learning by explicitly integrating new and old knowledge, and to assess understanding or diagnose misunderstanding. The holistic visual representation of a concept and the fact that information can be presented in a quick and easy manner on one page are two of the advantages to concept mapping. Concept mapping is also a visual tool that can be used to explain and present a complex concept in fewer words than if text were used.

Concept map construction requires a series of steps that lead to a visual representation of a person's knowledge and comprehension of a subject or concept. The process of developing a concept map has been compared to brainstorming. The "mapper" begins with a specific topic and then identifies all the key concepts that are related to the subject. The next step in the process is to place the concepts on the map. The concepts are portrayed in text boxes, often referred to as nodes. The text boxes are linked together using lines. The lines can be labeled with words, propositions on the links that identify the relationship between two text boxes. Usually arrows are used to demonstrate the direction of the link. The mapmaker may find, as the map progresses, that not all of the concepts that were originally identified are relevant or connected to the subject matter. Concept maps can be drawn by hand or completed using a computer software program.

Prior to developing a concept map, a choice must be made as to which type of map best matches the subject matter. Concept maps have been categorized and described in various ways in the literature. There are four basic types of concept maps. Hierarchical concept maps start with the most important information on the top and present information in a descending order of importance. Spider maps start with the central theme in the center with subthemes and concepts shown as radiating outward from this center. These maps may depict both the hierarchy and the interrelatedness of the concepts. Flowchart concept maps organize information in a linear fashion that represents cause and effect. The systems concept map, the last basic type of concept map, organizes information linearly, and has inputs and outputs that differentiate it from a flowchart. There are also three specialized concept maps: pictorial or landscape, multidimensional/3-D, and Mandala/ Mandala. In the latter, information is presented within a series of interlocking geometric shapes.

Sometimes concept maps are referred to as mind maps. The main difference between a concept map and mind map is that a mind map involves one main concept while a concept map may involve several concepts.

Application

A concept map is a visual tool that is used to design and communicate complex ideas and structures. It is used for a brainstorming session wherein the creator writes down whatever he or she thinks is connected to the main idea. Concept maps also can be used as meaningful teaching and learning aids. Christina DeSimone, in a 2007 article, identified three major uses of concept maps in postsecondary learning: the linking and organizing of ideas on paper, the mental construction of concepts, and the electronic construction and exchange of concept maps between students. Concept maps have been used in higher education since the 1980s; they are now becoming an important teaching tool in other disciplines, such as medicine, science, and nursing. In addition, researchers find the concept map a helpful tool to assist with data management, and businesses and governments find that it is a valuable tool for schematically representing conceptual or procedural knowledge.

In 2005, Ian Kinchin, Frans De-Leij, and David Hay investigated the use of concept mapping by undergraduate microbiology students to integrate course material and how the map could be used to evaluate course material. In a similar study in 2008, Dario Torre, Barbara Daley, Tracy Stark-Schwetzer, Singh Siddartha, Jenny Petkova, and Monica Ziebert did a qualitative evaluation of medical students' learning when concept maps were used. Both sets of researchers found that there was support for using concept maps to assist in knowledge integration and critical thinking.

In 2007, Simone Conceição and Linda Taylor performed a review of nursing literature and found that there were three ways that concept mapping was being discussed in relation to nursing. There were articles that focused on research, those that focused on the process of creating concept maps, and those that discussed the use of concept maps in nursing education. They also found that concept

maps were being applied in skills laboratories, classrooms, clinical practice, curriculum development, and research.

Researchers have used concept maps in the planning of a research project, to develop a conceptual framework that will link identified concepts to the actual research. In 2002, Barbara Daley used concept maps to plan a research study investigating how the use of concept maps impacted the learning of adult students in higher education. She charted the eight principles of the scholarship of teaching and learning on a concept map. The actual research was then linked to the eight principles as they appeared on the concept map.

Concept maps also have been used to address the challenges of analyzing qualitative research. Concept maps allow researchers to reduce the data in qualitative research in a meaningful way. They provide the researcher with visual identification of themes and patterns, a strategy for categorizing or coding the data in qualitative research, and a way to present findings. In a 2004 study, Jason Brown and Lisa Bednar used concept mapping to describe the themes identified by parents of children living with fetal alcohol spectrum disorder. In 2004, Patricia O'Campo, Jessica Burke, Geri Lynn Peak, Karen McDonnell, and Andrea Gielen used concept maps to illustrate the neighborhood domains that affect the prevalence, perpetration, severity, and cessation of partner violence. The major disadvantage in using concept maps in research, identified by Barbara Daley, is the complexity of the maps. The format of the concept map can create a challenge for the reader when trying to determine which concepts are of lesser or greater importance.

In nursing, concept maps have been used to develop, individualize, and organize a patient's plan for care. In a 2000 article, Patricia Schuster reported that when nursing students used concept maps to develop patient care plans, the students described the map as a holistic picture of the patient's problems that changed and evolved over time. For the students, the map presented the interrelatedness of the patient's problems, interventions, and expected outcomes.

Nursing educators have used concept maps as an effective tool to promote meaningful and effective learning and to help students develop abstract and critical thinking and problem-solving skills. Knowledge gains meaning when it can be related to a framework of existing knowledge. Concept maps can help facilitate the transition from theory to practice. Li Ling Hsu advises that learning is more likely to occur when information is presented in a meaningful way that promotes linking the old and new information or concepts. In contrast to relying on rote memory, the creation of a concept map involves an understanding of the concepts, a connection between the concepts, and a grasp of the entire situation. Novak reports that when concept maps have been used to promote assimilation of new knowledge, students' test scores have increased and there has been a decrease in students' test-taking anxiety.

In a 2005 study, Willie Abel and Martha Freeze evaluated the use of concept maps as a clinical teaching–learning activity. She found that as students progressed through the curriculum, their ability to use nonlinear thinking to identify relationships among concepts increased. Two years later Melanie MacNeil did a similar study, which demonstrated that when concept maps were used to evaluate students' knowledge of course material, students provided a clearer understanding of the material than when traditional course survey methods were used. MacNeil advised that future research is needed to refine evaluation criteria for concept mapping so that it can be used as an effective teaching strategy.

In a 2006 study, Laura Clayton conducted a literature review to identify research studies that used concept mapping as a teaching-learning tool. Her goal was to find evidence for the use of concept mapping as a teaching-learning method. Clayton identified seven research studies upon which to base her findings and recommendations. She concluded that concept mapping usually has positive effects on academic performance and fosters students' critical thinking ability. It also appears that concept mapping may be an appropriate teaching method but, like MacNeil, Clayton warns that the existing studies are limited for drawing generalizations. In a 2007 study, David Hay developed criteria for three types of student learning: deep learning, surface learning, and non-learning. In a master's level research course, Hay used a concept map to assess the quality of learning using these criteria. He found that deep, surface, and non-learning can be directly observed by using the concept map. Hay concluded that concept maps

have considerable potential for tracking student learning but warns that future research is needed to validate the learning criterion.

In 2006, John Nesbit and Olusola Adesope completed a meta-analysis of experimental and quasi-experimental studies that examined students from elementary to university, and from domains such as science, psychology, statistics, and nursing, that learned by constructing, modifying, or viewing node-linked maps. The authors found concept mapping was "somewhat more effective for retaining knowledge than studying text passages, lists and outlines" (p. 434) across a broad range of educational levels, subject areas, and settings. Like MacNeil and Hay, these authors identified the need for additional concept map research.

Concept maps have been used in curriculum planning as they can provide an explanation of why a particular concept is worth knowing and how it relates to theoretical and practical issues both within the discipline and without. Concept maps present, in a highly concise manner, the concepts and principles that need to be taught and the desired outcomes. The mapping process can help faculty members identify key concepts that are to be developed and integrated into the curriculum. At the course level, the instructor can construct a map that incorporates the key concepts and content, teaching strategies, and task allocations for the course. Concept maps can help teachers design units of study that are meaningful, relevant, pedagogically sound, and interesting to students. Using a concept map, faculty, administration, and staff can visually depict the conceptual relationships used for intended program and course outcomes. Overall, concept maps support a holistic style of learning.

Organizations and governments have used concept maps in different aspects of program development, planning, and evaluation. In 2004, the Hawaii Department of Health used concept mapping techniques to identify factors that affect individuals' behaviors related to tobacco, nutrition, and physical activity and to assess patient satisfaction. The Centers for Disease Control and Prevention used concept mapping to develop a logic model for their research program. Tamara Davis in 2007 used concept mapping to conceptualize and assess cultural competence for children's mental health services. Concept mapping

also has been used in engineering as a communication tool and by a newly formed community foundation to facilitate the development of transparent governance.

Critical Summary

There are a variety of uses for concept maps, but to date their most frequent use is by educators to increase a student's conceptual and critical thinking skills. Research is providing support for the use of concept maps in teaching and learning environments. The fact that concept maps are based on an established body of theory provides additional support for the tool in academic settings.

Margaret Dykeman and Janet Mackenzie

See also Cognitive Mapping; Constructivism; Experience

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CONCEPTUAL ARGUMENT

Because case studies generate very rich qualitative and quantitative data, they can be one of the best ways to develop conceptual arguments that result in theory development or extension, as long as sufficient attention is paid to research design. One of the approaches used to develop theory from case studies is called inductivism. Although theoretical propositions can be generated from a single case study, a much stronger conceptual argument can be made with a multiple-case study research design.

Overview and Discussion

A case can be considered an experiment, capable of producing theoretical propositions that allow predictions to be made about the circumstances under which similar or contrary findings might be expected. Case studies excel at answering "how" or "why" questions about contemporary real-life phenomena, where the researcher has no control over events and the relationships are complex and unfold over time. Case studies are frequently used to generate theory when little is known about a phenomenon, or findings are contradictory or in conflict with common sense, but they can also reveal limitations of, or extend, existing theories, and can provide insight about typical, extreme, or deviant phenomena.

According to Robert Yin, who has written extensively on case study research methodology, ruling out threats to internal and external validity to produce credible findings requires rigorous case study research design. The research design establishes the roadmap for how the study will be conducted, so that causal inferences can be made. It covers what questions to study, what data to collect, and how to analyze results. To make a convincing conceptual argument using a case study, the case(s) must be selected purposely to generate maximum insight into the phenomenon of interest. Data collection should be guided from the outset by tentative hypotheses or propositions that identify plausible, potentially significant relationships and constructs.

To enhance the reliability of the study findings, a research protocol must be established in advance that sets out, for each of the questions to be addressed, what procedures will be followed for data collection, analysis, and record-keeping. It must be flexible enough to permit the investigation of unexpected findings. The procedures outlined must be followed throughout the study. A database of researcher notes, documents, tables, and transcripts should be created. As well, to make replication possible, a separate evidentiary base that links the study questions and conclusions should be maintained. Evidence must be kept separate from interpretations.

To collect high-quality data, it is imperative that data collection be guided by preliminary theory or, if no theory exists, by a clear explanation of what is to be explored and why, and how the success of the study will be demonstrated. Data should be collected from multiple theoretical perspectives and data sources, using a variety of methods, and, where possible, multiple researchers. This approach to data collection is known as triangulation. Robert Yin states that triangulation provides "between methods" validation, which increases internal validity because measures are independent, and "within methods" validation, which increases reliability by providing assurances of consistency. Obtaining converging evidence via triangulation aids in theory development. Collecting both qualitative and quantitative data can help clarify relationships between variables, overcome researcher biases and blind spots, and prevent unsubstantiated theorizing. Data collection should continue until new data yield few additional insights.

One unique aspect of case study research is that data collection and analysis occur simultaneously. Although data collection is initially guided by tentative theories, as the data are collected continuous comparisons are made between the data and the guiding theory that may reveal anomalies and unexpected findings. Researchers must be attentive to all data collected and must consider all possible explanations for any anomalous findings, including validity threats, researcher biases, competing theories, and changes in the internal or external environment that could have an effect on the phenomenon of interest. They must be prepared to modify their data collection procedures, add data sources or additional cases, and even alter the research question as required by the emergent data.

The possibility that rival explanations might account for study findings poses a serious threat to the credibility of any conceptual argument being advanced. Therefore analytic strategies that minimize threats to internal and external validity are necessary. Robert Yin identifies a number of these. The first is pattern-matching, also called process tracing, where emerging patterns in the data are compared with those predicted by theory, to see if they match. The second is explanation building, where causal linkages to the phenomenon of interest are established over time, as plausible explanations are successively rejected until a credible pattern emerges. A third method is time-series analysis, where changes in a single or in multiple variables over time are noted and compared to trends predicted by theory or rival explanations. Multiple cause-effect chains can also be established and compared to those predicted by theory.

It is highly recommended that at least two case studies are used to build conceptual arguments, because the findings of the initial case can be stated as hypotheses or propositions, and tested in successive cases. The successive cases are purposely chosen to replicate or not replicate findings, as predicted by theory. Each case should be analyzed separately before findings are compared across cases. Each case can be considered an experiment, capable of verifying the theoretical linkages proposed. The use of a multiple-case research design strategy alleviates many of the concerns that might otherwise exist about the nongeneralizability or lack of internal validity of case study findings.

Case study findings must be clearly written and carefully presented to ensure that the conceptual arguments made are credible. The stringency of the design and research protocols, if followed, should ensure credibility, but the case study report itself must be persuasive. Evidence should be supplied in an unbiased way, allowing readers to draw their own conclusions. When writing up single case studies, each theoretical proposition must be clearly presented, with sufficient evidence supplied to support conclusions reached. When writing up multiple case studies, the extent to which theoretical predictions were upheld must be stated, with all instances of nonreplication theoretically justified. In either instance, examining the evidence from different perspectives and demonstrating how rival explanations were ruled out strengthens the report.

Application

Good examples of how to make credible arguments using case studies can be found in books or doctoral dissertations, where relatively unrestricted page length permits detailed descriptions of the research methodology and the evidence supporting theoretical claims. One example of each is referenced below. There is also a growing body of literature available that pertains to case study methodology. Researchers should find both the Eisenhardt and Graebner and the Yin references helpful. The remainder of this entry describes two recently published journal articles, one a single case study and the other a multiple case study, that made useful theoretical contributions and illustrate some of the ways conceptual arguments can be made.

Darja Peljhan's article describes an in-depth explanatory case study undertaken to examine the relationship between the use of management control systems and strategy implementation in one Slovenian company. Embedding the case study within existing theory, Peljhan collects data from interviews, participant observation, and internal and external documents covering the period 1992–2004. The study illustrates how the two constructs are related, and extends theory by showing how the relationship impacts organizational performance. Her doctoral dissertation is referenced below so interested researchers can access detailed information about methodology and how her data support her conclusions.

In the second article, Elizabeth Hamilton seeks to fill a gap in the literature to arrive at an understanding of how an organization's loss of legitimacy might be connected to its sudden death. By extrapolating from related literatures, an initial explanatory model is created that identifies three possible moderators of the relationship. After stating the tentative relationships as a series of propositions, the propositions are tested by examining archival data collected from company Web sites, business magazines, and newspapers on three purposely selected American companies that suffered sudden death. Each case is analyzed separately, then findings are compared across cases. The conclusion reached is that the model needs revision, but this study makes a theoretical contribution nonetheless by establishing a preliminary model to guide future research and by identifying some of the additional relationships that need to be explored.

Critical Summary

Proper research design enables researchers to make credible conceptual arguments via the use of single or multiple case studies. Remaining attentive to threats to reliability and to internal and external validity throughout the research process is critical to avoiding the most commonly cited problems regarding case study research. Because case study data are collected holistically and in real-life contexts, and the analytic strategies employed ensure that conclusions reached are tightly linked to empirical data, case studies can produce interesting, empirically valid theory. Situating a case study within the extant literature can strengthen its theory-building capacity.

Janice R. Foley

See also Credibility; Inductivism; Pattern Matching; Process Tracing

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CONCEPTUAL MODEL: CAUSAL MODEL

A conceptual model is a simplification of reality. It is a schematic representation of the core concepts

(the variables) of a research project and of the assumed causal relationships between these core concepts. A conceptual model might prove very useful when using it in a deductive case study approach, in which the researcher develops the assumptions concerning the relationships between the core concepts by basing assumptions on a theory. A conceptual model can also be obtained as a result of an inductive case study approach.

Conceptual Overview and Discussion

A conceptual model consists of relationships between core concepts. Although a core concept sometimes corresponds to an observable constant, such as "nature" or "organization," in a conceptual model core concepts refer only to phenomena that can occur in different variations. For example, leadership style is a phenomenon that has different variations, such as "a participatory leadership style" or "an authoritarian leadership style." Because of this variation, researchers often use the term variables to indicate the core concepts of their research. Some variables, such as "sex," are nominal variables, and can be presented only in terms of distinct categories, such as "man," "woman." Ordinal variables, such as "level of commitment," can be presented in terms of "more" or "less," whereas interval variables, for example, "age," have a variation in which the numeric distance between two ranking points can be fixed.

When we consider the *relationship* between core concepts, we refer to a *causal* relationship, in which we differentiate between cause and effect. We recognize a causal relationship in phrases such as "X causes Y," "X leads to Y," "the consequence of X is . . . ," "X influences . . . ," and so on. Generally speaking, we define a relationship between two variables X and Y as a causal one if we assume that, as a result of a change in X, a change will occur in Y. For example, we expect a causal relationship between a leadership style and the business's profits when we assume that a change from an authoritarian style to a participatory style will cause a change in the volume of the profit.

Labeled according to the nature of the assumed effects, three different types of a conceptual model can be distinguished (Figure 1).

A *direct effect* conceptual model suggests that we study the immediate influence of the *independent*

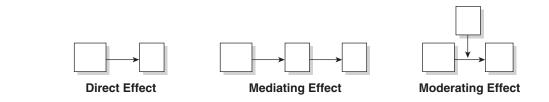


Figure I Types of conceptual models

variable X (cause) on the *dependent* variable Y (effect). For example, we expect that intensive smoking (X) causes an increase of lung cancer mortality (Y).

It is possible that the independent variable (X) affects the dependent variable (Y) indirectly, via a *mediating* variable Z. For example, an increase in the level of economic activity (X) will lead to a higher quality in the healthcare system (Z), and that the latter will increase the population's general state of well-being (Y).

It can also occur that there is a direct effect of variable X on variable Y, but only under particular circumstances. In this case we speak of a *moderating* effect, because we expect that a third variable Z modifies the direction or the strength of the direct relationship between variable X and variable Y. For example, the level of financial reward (X) will have a direct effect on the level of performance (Y). However, we expect that this relationship will be stronger for young people than for those who are older. Hence, we expect a moderating influence of age (Z). Please note that the moderating variable Z does not have an effect on either X or Y, but only on the relationship between the two variables.

Application

In the majority of case study research projects, researchers gather information while using a rather inductive research approach, in which they collect data corresponding to a set of loosely connected sensitizing concepts. Nevertheless, well-established conceptual models are used in a growing number of cases studies, particularly in practice-oriented research. A recent example of the use of a conceptual model in case study research was presented by

Melinda Karp and Katherine Hughes, who studied the influence of the so-called credit-based transitions programs (CBTPs) on students' progress in postsecondary educations. A CBTP is a program that allows high school students to take college classes and to earn college credits while still in high school.

Karp and Hughes developed an initial conceptual model depicting the influence of CBTPs on student access to and success in postsecondary education. The core of the conceptual model represents two independent variables (College Course Work and Support Services) that affect two dependent variables (College Acceptance and Matriculation and College Persistence), via three mediating variables (Academic Skills, Success and Motivation, and Social and Procedural Skills). They conducted five in-depth qualitative case studies. Their study demonstrated that the initial conceptual model oversimplified the reality of college preparation. Hence, they refined the model, thus taking into account additional variables, such as High School Coursework and Student Motivation. Future research should be done to test this model empirically.

Critical Summary

In a deductive case study approach, a well-designed conceptual model helps the researcher to demarcate his or her research subject clearly and to formulate correctly the assumptions made concerning the relationships between the core concepts. However, the majority of case study projects is based on a rather inductive approach. In those cases, it would be more appropriate to use a set of sensitizing concepts.

Hans Doorewaard

See also Conceptual Model: Operationalization; Deductive–Nomological Model of Explanation; Inductivism; Sensitizing Concepts

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CONCEPTUAL MODEL: OPERATIONALIZATION

To conduct successfully a deductive case study project that has been based upon the construction of a conceptual model, the researcher needs to operationalize the variables of this conceptual model. Operationalization is the development of specific operational definitions of these variables. According to Earl Babbie, the operational definitions will result in empirical observations representing the conceptual model in the real world. Each conceptual model requires adequate operationalization, regardless of its use in qualitative or quantitative research.

Conceptual Overview and Discussion

Operationalization requires three steps. First, the researcher needs to specify the core concepts of the conceptual model. Second, the researcher needs to determine a set of indicators or topics. Third, the researcher has to formulate an appropriate set of so-called data elicitors.

The *specification* of the conceptual model starts with defining a generic conceptual model. In the generic conceptual model the researcher defines the core concepts of the research project and decides which of these concepts are the dependent,

the independent, and—when appropriate—the mediating or moderating variables.

For example, in a practice-oriented qualitative case study, the researcher aims at giving a clear insight into the influence of job characteristics on the employees' capacity to change. The generic conceptual model (direct effect) consists of the independent variable Job Design and the dependent variable Capacity to Change.

Because the core concepts as such are often too complex, too comprehensive, and too abstract, they need further specification. Based upon a profound study of the relevant literature, the researcher further decomposes each of these concepts into elements that are more unambiguous, less all-inclusive, and more concrete. The researcher unravels each of the core concepts into its dimensions, aspects, or subaspects. Subsequently, the researcher selects the dimensions, aspects, or subaspects that will be the constituting elements of the research.

The further analysis of the concept Job Design is based upon the five dimensions of the classic *job characteristics model* of J. Richard Hackman and Greg R. Oldham. The researcher focuses on the aspect Work Quantity Autonomy of the dimension Task autonomy. One of the dimensions of the concept Capacity to Change is Commitment. Commitment is decomposed according to Natalie J. Allen and John P. Meyers's model of organizational commitment. The researcher selects the aspect Affective Commitment from the dimension Commitment. Hence, the specified conceptual model consists of the independent variable Work Quantity Autonomy and the dependent variable Affective Commitment.

The final conceptual model includes the formulation of the assumed relationships to be studied. These assumptions, whether expectations or hypotheses, are based on the results of previous research. If previous research shows that the selected independent variable often has the same effect on the dependent variable, the researcher will be inclined to expect the same relationship in this research project. The researcher formulates assumptions for each of the relationships. This set of assumptions finalizes the conceptual model.

The researcher assumes that Work Quantity Autonomy will have a positive effect on Affective Commitment. The expectation or hypothesis reads as follows: An increase in the level of Work Quantity Autonomy will lead to a higher level of Affective Commitment.

Second, the researcher needs to determine the *indicators* or *topics* of his or her research. Within the context of quantitative research, the researcher will determine a *measurable indicator* (e.g., number of cigarettes smoked a day) for a specified concept (e.g., level of intensive smoking). Qualitative research needs *recordable and not necessarily measurable* topics (e.g., the respondent's self-report regarding the perception of satisfaction after having smoked a cigarette). Based on further reading of scientific literature and a deeper analysis of the research context, the researcher determines indicators for each of the selected dimensions, aspects, or subaspects.

The researcher determines the following topics for the aspect Work Quantity Autonomy: the perceived autonomy regarding the Beginning and Ending of the Working Hours, the Work Pace, and Delivery Time. Organizational Pride, Selflessness, and Loyalty should indicate the aspect Affective Commitment.

Third, the researcher needs to formulate a *data elicitor* per indicator or topic that evokes the data and information in regard to the indicators or topics. In quantitative research, a data elicitor is often a question concerning measurable data, such as people's age, or an organization's turnover. It also could take the form of a Likert item in which the respondent is asked to indicate to what extent he or she agrees with a particular statement. In qualitative research, a data elicitor is a set of questions concerning both the selected topics and the relationship between the different topics.

The researcher formulates a set of questions in regard to both sets of topics concerning Work Quantity Autonomy and Affective Commitment as well as concerning the perceived relationship between the two sets of topics.

Critical Summary

Operationalization of the conceptual model is a vital step that must be taken when designing a deductive case study project, in both quantitative and qualitative research. Without a clear and well-documented operationalization procedure, the researcher's interpretation of the data of his or her research remains in a black box, thus decreasing the necessary reliability of the research results.

Hans Doorewaard

See also Conceptual Model: Causal Model; Conceptual Model in a Qualitative Research Project; Conceptual Model in a Quantitative Research Project

Further Readings

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CONCEPTUAL MODEL IN A QUALITATIVE RESEARCH PROJECT

When using a deductive case study approach, researchers often choose a qualitative research design in which they develop a conceptual model. The aim of the qualitative research project is to carry out an in-depth analysis of the relationships between the concepts of this conceptual model.

Conceptual Overview and Discussion

There are major differences between the elaboration of a conceptual model in quantitative and qualitative research projects. These differences concern both the process of *operationalization*, which is the specification of core concepts into indicators or topics, and the selection of the methods of *data collection* and *data analysis*. In a qualitative research project, the set of decisions that a researcher needs to make in the process of operationalization will lead to a set of *recordable but not necessarily measurable* topics.

For example, in a practice-oriented research project the researcher aims at clarifying the effects of two topics, Career Perspective and Sense of Responsibility, of the independent variable Personal Characteristics on two topics, Illness Awareness and Perceived Impact on Personal Well-Being of the dependent variable People's Illness. The researcher formulates a set of expectations about the relationship between the two sets of topics. For example, in regard to the relationship between Career Perspective and Illness Awareness the researcher expects to find support for the following hypothesis: "People who have a high career perspective possess a lower illness awareness than those with a low career perspective."

Note that none of the topics are directly measurable. The information required in a qualitative research project often concerns complex research topics that are composed of a number of simple and complex, abstract and concrete characteristics. In this case, by reducing the information to numerical scores, as required in a quantitative research project, the quality of the information is also reduced. The researcher needs to gather so-called *thick* data.

The researchers will seek appropriate methods for data collection, such as a face-to-face open interview, participatory observation, or the narrative approach. Whereas a questionnaire is used in quantitative research, in qualitative research the researcher develops a research topic list with data collection guidelines, to be used during the actual data collection activity. These data collection guidelines include an appropriate set of data elicitors to evoke the thick data and information needed. In qualitative research, a data elicitor consists of a set of questions concerning the research topics. In contrast with the data collection method used in quantitative research, the researcher also develops data elicitors pertaining to the relationship between the different topics. Data elicitors in qualitative research indicate the topic label, and the question that needs to be answered. They also include examples of clues or probes (e.g., facts, events, and statements) that indicate the occurrence and intensity of a particular topic.

For example, in order to investigate the expectation that "People who have a high career perspective possess a lower illness awareness than those with a low career perspective," the researcher chooses to interview the respondents and develops three sets of data collection guidelines in regard to Career Perspective, Illness Awareness, and the relationship between these two variables.

Topic: Career Perspective

Question: Does the respondent have a high or a low career perspective?

Clues: For example, when the respondent during the interview states that he or she

- sees possibilities for getting a better job in the near future (high)
- wants to stay in this company because he or she does not want to hinder further career opportunities in the long run (high/low)
- is at the end of his or her career path (low)

Topic: Illness Awareness

Question: Does the respondent have a high or low illness awareness?

Clues: For example, when the respondent during the interview states that he or she

- seeks treatment, such as sick leave and medical consultation whenever the first symptoms of illness occur (high)
- waits a few days before seeking medical help in order to find out whether the symptoms will disappear (high/low)
- postpones seeking medical assistance as long as possible (low)

Topic: Relationship between Career Perspective and Illness Awareness

Question: Does the respondent indicate that there is a relationship between his or her career perspective and his or her illness awareness?

Clues: For example, when the respondent during the interview states that he or she

- hardly ever reports to work sick because it might harm his or her career (high)
- hesitates to report to work sick because it might harm his or her career, but not too long (high/low)
- reports to work sick or not, regardless of the possible consequences for his or her career perspective (low)

The application of the selected data collection instruments results in a set of qualitative data that will be analyzed by making use of qualitative data analysis techniques. When a conceptual model is used, the collected data are prestructured according to the assumed relationships between the concepts of this model. In this case, the data analysis techniques focus on the analysis of the similarities and dissimilarities between the prestructured data.

Critical Summary

In a deductive case study approach, researchers often carry out a qualitative research project in which they make use of a conceptual model. In a case study, qualitative research is often preferable to quantitative research, since the required information often concerns complex research topics that themselves are composed of a number of simple and complex, abstract and concrete characteristics. However, as in quantitative research, the researcher must operationalize the conceptual model in a transparent and replicable way. He or she should also develop a topic list consisting of adequate data collection guidelines. Both activities are essential to enhance the reliability and validity of the research project.

Hans Doorewaard

See also Conceptual Model: Causal Model; Conceptual Model: Operationalization; Conceptual Model in a Quantitative Research Project

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Conceptual Model in a Quantitative Research Project

When using a deductive case study approach, researchers often combine quantitative and qualitative research, and in both types they use a conceptual model. The aim of the quantitative

research project is to produce general information about the relevant issues of the research object. Subsequently, a qualitative research project is often carried out, focusing on an in-depth analysis of these relevant research topics.

Conceptual Overview and Discussion

In both quantitative and qualitative deductive case study projects, researchers needs to formulate their expectations of the assumed relationships between the variables that are presented in the conceptual model. In both cases, they will gather data and information in order to discover the extent to which the assumed relationships might be found in reality.

Of course, there are major differences between the detailed elaboration of a conceptual model in a quantitative and a qualitative research project. These differences concern both the process of operationalization, which is the specification of core concepts into indicators, and the selection of the methods of data collection and data analysis.

As Earl Babbie and others have argued, in a quantitative research project the decisions a researcher makes during the process of operation-alization will lead to a set of *measurable* indicators: a set of indicators that can be converted into quantifiable data.

For example, in a practice-oriented research project the researcher aims at clarifying the effects of two indicators Age and Sex of the independent variable Personal Characteristics on two indicators Duration and Perceived Impact on Personal Well-Being of the dependent variable People's Illness. The researcher formulates a set of hypotheses about the relationship between the two sets of indicators. For example, in regard to the relationship between Age and Duration, the researcher expects to find support for the following hypothesis (in the words of Piet Verschuren and Hans Doorewaard): "Older people are ill longer than younger people."

Please notice that the indicators Age, Sex, and Duration are directly measurable. The indicator Perceived Impact on Personal Well-Being can be measured only indirectly, by means of a transformation into a set of codes.

The researcher selects or develops an appropriate set of data collection instruments. These instruments are designed to gather quantifiable data in the form of numerical scores in order to allow the researcher to carry out a statistical data analysis. One of the most common data collection instruments in quantitative research is a questionnaire. The set of data elicitors in a questionnaire consists of a series of closed questions with standardized answers; they are meant to evoke relevant information from respondents. Some of these questions directly ask the respondents for numerical data.

For example, the numerical data of the indicator Age can be asked directly ("What is your age?"). The same goes for the indicators Duration ("How many days have you been ill?"). Other indicators need to be transformed into codes. Sometimes, the researcher simply ascribes a numerical code to a particular variation. Another frequently used technique is the Likert item. A Likert item is a statement which the respondent is asked to assess. The respondent indicates his or her preferred answer after having selected one out of a set of fixed answer categories. A set of coherent Likert items forms a so-called Likert scale.

For example, in regard to Sex, the researcher ascribes code 1 to male and code 2 to female. The indicator Perceived Impact on Personal Well-Being is measured by means of a set of Likert items, such as "When I am ill, I feel downhearted and blue," with the following respondent's instruction: Please select one of the following five options: I strongly agree, I agree, I am neutral, I disagree, I strongly disagree.

Take note that in quantitative research the researcher does not include in the questionnaire data elicitors in regard to the formulated hypotheses. Whether or not support is found for the hypotheses depends on the results of the data analysis.

The application of the selected data collection instruments results in a set of quantitative data that will be analyzed by making use of statistical techniques. First, data analysis consists of a well-elaborated set of statistical techniques for data diagnosis, such as data preparation, data description, and scale analysis in order to improve the reliability and validity of the research project. Second, the statistical techniques of data analysis focus on testing the formulated hypotheses.

Critical Summary

From time to time, researchers carry out a quantitative research project in a deductive case study

approach, in combination with a qualitative research. Since in a case study the required information often concerns complex research topics that are composed of a number of simple and complex, abstract and concrete characteristics, a quantitative research project often has a limited scope. The purpose of this research project is to explore the relevant issues of the research project. On many occasions, the quantitative research project is restricted to a descriptive analysis of the occurrence and variation of each of the variables of the conceptual model. Only on rare occasions does the research focus on an explanatory data analysis, which seeks to analyze the correlation between the different variables, in order to test the set of hypotheses.

Hans Doorewaard

See also Conceptual Model: Causal Model; Conceptual Model: Operationalization; Conceptual Model in a Qualitative Research Project

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CONFIGURATIVE-IDEOGRAPHIC CASE STUDY

Configurative-ideographic case study, also commonly known as an atheoretical case study, is one of the five types of case studies delineated by Harry Eckstein. It is a method that selects cases for analysis with the intent to understand the idiosyncratic dynamics of the case under investigation. In its endeavor to understand the dynamics of a specific case rather than to predict the antecedents of a general phenomenon, its focus remains outside the methodological purview to confirm, infirm, or build theory. Instead it seeks to proffer, as Colin Elman and Miriam Fendius Elman suggest, a highly nuanced and detailed narrative of the phenomenon

that does not draw on, in any substantive manner, theory or theory-related variables.

Conceptual Overview and Discussion

Configurative-ideographic case study tends to be wholly descriptive and entirely bereft of theoretical considerations. Indeed, as Arend Lijphart observes, such case studies are neither determined by established or hypothesized premises nor are they motivated to advance theory in the field through the generation of hypotheses. As such, its contribution to direct theory development—that is, the construction of generalizations—remains absent. It is, as Alexander George and Andrew Bennett describe, thus ontologically opposite of case methods that revolve around theory testing, that is, case methods that attempt to decipher the validity and the scope conditions of various theories.

Scholars adopting a configurative-ideographic case method endeavor to capture a holistic perspective on a given event or phenomenon. Juliet Kaarbo and Ryan K. Beasley note that while this case method requires the evocation of some level of a priori ideas—as do all examples of empirical research—which could be perceived as recourse to theoretical arguments, studies utilizing configurative-ideographic cases are not explicitly grounded in preconceived notions. The data emerging from this method provide the sole basis for describing the phenomenon under study. Thus, there is little, if any, consideration of how one phenomenon relates to another. This has led some scholars to conclude that configurative-ideographic case studies present few benefits beyond their contribution to conceptualizing historical events. Not surprisingly, then, it is historical studies that rely upon primary evidence to construct particular narratives that have most often utilized this specific case method.

As configurative-ideographic case studies do not directly engage with theory-related elements—and, hence, do not epistemologically cohere with the scientific method—they have been much criticized by scholars. Specifically, criticism has been deployed against its lack of methodological sophistication and the reliability and validity of the data that emerge from these studies. However, for the configurative-ideographic case scholar, this line of criticism remains moot. Indeed, the primary aim of such

case studies is exclusively to provide a substantive descriptive analysis, which is viewed as the end itself rather than a means from which to ascertain broader theoretical objectives. It is precisely this fact that differentiates the configurative-ideographic case study from the disciplined-configurative case study that tests theory or invokes extant theory to explain an outcome, or the heuristic case study that, through induction, develops new theoretical variables and hypotheses.

Application

Due to the fact that they refrain from generalizing and, therefore, do not engage with theory development, social science researchers have largely refused to employ configurative-ideographic cases as a method for ascertaining empirical results. This might be explained, at least in part, as being due to the difficulties associated with publishing articles in scholarly journals that do not overtly provide theoretical advancements to the field. The utilization of such cases should not be dismissed imprudently, however. Configurativeideographic cases elucidate, in the most detailed and nuanced of ways, the dynamics of a particular phenomenon. In this way, such studies can potentially offer rich description, which can then serve as an analytical site for theory building in future research.

An excellent example of this is found in Karl Weick's pathbreaking work on sensemaking. Weick uses Norman MacLean's comprehensive case study on the Mann Gulch disaster of 1949 to develop and advance theory on organizational behavior. His research illuminates the possibilities for social researchers to draw upon historical accounts of a single atheoretical case to develop or extend theory. Indeed, writing almost half a century after the event occurred, Weick uses the Mann Gulch case to map a new terrain of academic inquiry for the field of organization studies. In sum, while configurative-ideographic cases are not widely used by scholars, they do, at minimum, provide a platform for conceptual enrichment.

Critical Summary

Configurative-ideographic cases have been obstinately avoided and, at times, denigrated by social

researchers for their failure to develop theoretical insights. Nevertheless, such cases provide rich data for subsequent theory development. To borrow the vernacular of anthropological methods, configurative-ideographic cases offer a source of thick description—they allow researchers to delve into the details pertaining to the "localized" lived realities, social discourses, and the cultural contexts that manifest in a given phenomenon. Accordingly, critical engagement between data emerging from configurative-ideographic cases and conscious endeavors to expand the case study's conceptual purview can not only develop an alternative methodological trajectory for conducting empirical work, but also can equally impart novel insights to various social research inquiries.

Ajnesh Prasad

See also Sensemaking; Theory-Testing With Cases; Thick Description

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CONGRUENCE ANALYSIS

Congruence analysis focuses on drawing inferences to the relevance of theories from the (non-) congruence of concrete observations with predictions deduced from these theories. In order to be able to draw inferences about the relevance of the theories, it is necessary that the researcher deduce predictions about what he or she can observe according to these theories. This is not, however, to state that congruence analysis starts with theory. The recommendation that the researcher should derive predictions about observations before the empirical work is conducted is justified only as a means to enhance reliability and objectivity. Such a purely deductive approach is necessary if one is interested in evaluating the predictive power of theories with the help of statistical tools for which standardized observations are needed. A qualitative approach would allow for iterative interactions between theoretical implications and empirical indications, thus leveraging the full richness of information present in the empirical case to draw inferences about the relevance of theoretical concepts.

Conceptual Overview and Discussion

Epistemological Relativism and Theoretical Pluralism

Practitioners of congruence analysis indicate that empirical findings are strongly influenced by the theoretical lenses employed. Therefore, congruence analysis has a clear affinity for relativist epistemologies, which results in the conviction that empirical research cannot be used to verify or falsify theories but just to provide evidence for the relative strength of a theory by providing understandings and explanations. Congruence analysis is compatible with a broad epistemological spectrum, from radical epistemological constructivism, which accepts no external reality but uses empirical observations as material to demonstrate the power of a theory to create meaningful interpretations, to positivism, which perceive theories as more or less powerful instruments to shed light on an objectively existing reality. A possible consequence for all of these epistemological starting points is to apply a plurality of theoretical lenses in studying empirical cases. This plurality of theoretical lenses will provide a more comprehensive understanding and/or explanation of a specific case.

"Prediction" More Broadly Understood

Congruence analysis differs from congruence method on the basis of a broader meaning of "predictions." In congruence analysis, predictions are not limited to the expected covariation between dependent and independent variables. Instead, the predictions derived from theory should be as diverse as possible and should include not only data-set observations (values of independent and dependent variables) and causal process observations (e.g., sequences of events) but also predictions about the most important actors, their perceptions, and their motivations (traces of microfoundational causal mechanisms) or other fundamental elements of the theory. In order to be able to deduce these kinds of predictions, theories must be conceptually rich. They must go beyond a hypothesis, which just predicts a specific causal relationship between a factor and an outcome.

We can distinguish among three different approaches in respect to the question of how to weight the various predictions/observations when the researcher draws conclusions for the theories from the (non)congruence of predictions and empirical observations. A quantitative approach would count and weigh every match and every mismatch between prediction and observation equally. More qualitatively oriented scholars would argue that some predictions are more important than others. Those who lean toward a positivist understanding of congruence analysis would point to the predicted covariation between dependent and independent variables. It seems, however, that the most consistent approach within congruence analysis would be to give most importance to the conceptual core of a theoretical approach rather than the necessary outcome, given specific values of the causal factors.

Semiotics as a Guiding Tool

Linking abstract concepts to observations is at the very core of congruence analysis. Researchers applying congruence analysis have to invest much more time and intellectual energy (resulting in

explicit and extensive justifications) on this element of the research process in comparison to what is usually done during the operationalization phase in covariance-oriented studies. In covarianceoriented case studies (e.g., large-N studies) the focus of reflection lies on the metric qualities of the indicators. In contrast, the only relevant criterion for predictions or indicators within a congruence analysis approach is the concept validity of these predictions, that is, the question of whether the predicted observation really expresses the meaning of the abstract conceptualization correctly. Similar to how mathematical logic helps to guide the drawing of inferences from covariations of factors to the existence of a causal relationship between these factors, linguistics/semiotics can serve as a guide for drawing inferences from concrete observations to abstract concepts (or vice versa). Theoryoriented case study research should be much more reflective on the relationship between concrete observations and the plurality of abstract meanings that can be associated with these observations.

The following studies can be considered examples of congruence analysis, even though they do not use this wording.

Application

Elizabeth Wilson and Arch Woodside undertook a study using an approach they call "degrees of freedom analysis" because they ground their approach on the famous article by Donald Campbell, in which he showed that case studies can overcome the problem of degrees of freedom because they embody a large set of different observations. This can be considered an application of congruence analysis since the study generates a prediction matrix prior to relating it to observations. More important, the study does not aim to verify or falsify a theory, but rather aims to illustrate the strength of specific theories to explain group decision making. Wilson and Woodside develop their analytical technique, which in essence is pattern matching, in order to compare the extent to which four theories of group decision making are manifest in organizations. They start with deducing predictions from four theories of organizational decision making (i.e., rational, bounded rational, political, garbage can) within nine basic decision phases (i.e., problem definition, solution search, data collection, analysis, use, information exchange, individual preference formation, evaluation criteria, and final choice between alternatives). For every decision phase they formulate two questions and the answers, which would be in accordance with the four theories. For example, in the second phase (search for alternative solutions) they ask the question: Are potential solutions considered simultaneously and are they compared with each other? Whereas the rational model would be confirmed if the empirical observation provides a "yes" to this question, the political model and the garbage can model would be confirmed if the empirical data indicate a "no." For the bounded rational model the authors deduce an in-between category; they would confirm the theory if the empirical observations indicate that such a simultaneous consideration of solution occurs "partially." Over all, their prediction matrix consists of 56 predictions. Once this prediction matrix was established, in-depth interviews were held with two or three members of four different buying centers across a university. The qualitative interviews focused on the same decisions (office copiers) but were semistructured and included open questions. In addition to the transcripts of these interviews, the researchers collected other documents with relevant information for the decision-making process. Three "judges" extracted information out of the acquired data that was seen as relevant to the specific cells of the prescription matrix. Next, this information was coded as hits and misses of each theory. Finally, Wilson and Woodside analyzed the results of the congruence analysis of all three judges with the help of statistical tests (chi-square and z-test). This means the quality of each theoretical model was tested by the fit of its predictions with the empirical observations.

As a next step, the authors compared the strength of the theories in terms of their ability to generate correct predictions. This means that no theory is falsified or verified. This approach indicates that case studies are able to shed light on the relative strength of specific theories. Another specific quality of this approach is that it combines a strictly deductive approach for generating the predictions and the use of well-defined statistical tools for analyzing the congruence between observations and predictions with a qualitative approach for generating and coding the observations/statements.

Furthermore, the authors reflect upon how to improve the "interpretative" part of the research technique because they realize that in comparison to their sophisticated statistical means to analyze the coded data they have not yet used similar sophisticated methods to generate questions. This, if done, would ensure that there is no bias in the tested theories.

An even stronger example of congruence analysis is the well-known work by Graham Allison and Philip Zelikow on the Cuban missile crisis. The authors differentiate three theoretical approaches for decision making in international politics: the rational actor model, the organizational behavior paradigm, and the governmental politics model. For every approach, they discuss the relevant theoretical literature and formulate a "paradigm" that includes the (a) basic unit of analysis, (b) organizing concepts (including microfoundations like the rational choice theory for the first model), (c) dominant inference pattern, (d) general propositions, and (e) typical evidence used within such a paradigm. After each theoretical chapter follows a chapter in which Allison and Zelikow tell the story in a narrative form guided by the theoretical lens developed in the foregoing chapter. As a result, we get three different "cuts" of the Cuban missile crises. With the respective theoretical framework in mind, they focus within their empirical chapters on three research questions: (1) Why did the Soviet Union decide to place offensive missiles in Cuba? (2) Why did the United States respond to the missile deployment with a blockade? (3) Why did the Soviet Union withdraw the missiles? Each narrative reveals a different interpretation of these research questions in the Cuban missile crisis: the rational version focuses on the key interests of the two superpowers behind each decision; the organizational version describes routines and organizational processes that influenced and delayed decisions; and the politics version showed that power and influence struggles within both groups of advisors and subordinates also influenced the course of events. While the link between theory and empirical information is less strict and stringent as compared to the Wilson and Woodside study, the main goal of Allison and Zelikow is not the testing of the (relative) empirical adequacy of theories, but to show the capacity of the organizational behavior paradigm and the governmental politics model to reveal factors of influence that would not have come to light by the use of rational actor model. In their methodological reflections about their findings, they acknowledge that the apparent explanatory contradictions between the three different cuts are a consequence of using multiple approaches. In other words, the Cuban case study is neither aiming to reveal which theory is right and which one is wrong (falsification/verification) nor does it try to reveal their relative explanatory strength (as does the Wilson–Woodside approach). It tries to reveal the additional insights that one obtains by using complementary theoretical lenses.

Critical Summary

One of the strengths of case study research is the potential for coming out with novel findings. At the same time, it is important to ensure the validity of the findings from such studies. Congruence analysis helps in sustaining the validity of a study through a process of analytical generalization. Theoretical pluralism helps in obtaining additional insights from the richness of the case study. A key issue to watch for while using congruence analysis is the appropriateness of relevant theories to the concepts being studied. While a technique such as process tracing helps to trace events to unearth causal and microcausal relationships to the eventual outcome, congruence analysis helps to analyze those relationships using the explanatory power of various theoretical lenses. In a way, congruence analysis helps to bridge the gap between the normative predictions and the positive observations.

Thillai Rajan Annamalai

See also Analytic Generalization; Epistemology; Method of Agreement; Method of Difference; Paradigm Plurality in Case Study Research; Pattern Matching; Process Tracing; Rival Explanations; Signifier and Signified

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CONSCIOUSNESS RAISING

Consciousness raising is a critical tool for raising awareness of social inequities. The process centers on elucidating and elevating individual experiences of oppression to public and political spheres. It is the practice of people with a common concern or orienting issue coming together to share their experiences. In these narrative accounts, they empathize with one another's situations, provide support to each other, and identify and codiscover their commonalities. In consciousness raising, the commonalities are connected to the broader societal structures with a view to how these social dynamics perpetuate injustices. In this process, people become empowered. This empowerment may animate them to make changes not only in their own lives but also to organize with others to develop a broader plan to create change in the civic sphere.

Conceptual Overview and Discussion

Oppressions and our struggles for social justice give rise to consciousness raising. Consciousness raising is a group process whereby sharing one's experience inspires group members to see their stories as part of a larger societal problem. The awareness process is one of discovery and empowerment. Working from their own personal lived experience, people in the group see beyond an individualistic approach to their issues to understand how their lives are connected through social practices. These social practices are critical in that they continually create individuals' experiences of oppression. Making these analytical connections to the political nature of social injustice and oppression is formative in creating social change.

Consciousness raising is both a concept and a practice with roots most clearly embedded within the feminisms of the 1960s. Consciousness raising has also been central to liberation education espoused by Paulo Freire. Within feminisms, consciousness raising is intimately linked to the theoretical slogan that the "personal is political." What this means is that what one person experiences is a reflection of the social structural order.

The reason that consciousness raising is such a powerful tool against oppressive dynamics is that it decenters the authority of internalized oppression. Once people gain perspective on how they are both a participant in and a resister to their own oppression, they can connect choice or the lack of choice to their experiences. In such a process of exposing and analyzing their oppression, people are able to gain alternative perspectives. It becomes possible to imagine ulterior patterns and other forms for their life. When these insights are organized and mobilized to create social justice in the public sphere, they have a resonance among the populace that has tremendous political power.

Consciousness raising in the context of case studies has several facets that are connected to the type of case study: intrinsic, instrumental, or multiple case study. Intrinsic case studies, as the name implies, are explored for their own merit. Instrumental case studies are examined in the service of an ulterior motive for their potential to enhance understanding of an issue or phenomenon. The case per se is less emphasized than the theoretical insight it might afford. Several cases selected to accomplish such instrumental goals constitute the multiple case study approach.

Consciousness raising may be a primary objective or a secondary outcome of the process in the

intrinsic type of case study. In these projects, it would most likely be part of an interactive research framework using any one of a number of models, including participatory action research, collaborative inquiry, emancipatory research, action learning, contextual action, or any variation on the concept of grassroots, community-based research. The participants are studying themselves or some aspect of their community with the purpose of creating and exchanging knowledge. They may not be focused explicitly on consciousness raising, but it will often be a subsidiary effect of their collective work.

In instrumental case studies, consciousness raising might form part of the knowledge exchange phase of the project, wherein a particular case was selected to illustrate a point or issue. Communication about the project with the community might animate others to see how their own issues are connected to the case. Exchanging knowledge about their situations might inspire the community to mobilize around their shared issues. Translating knowledge into public action would be part of how the instrumental case study illustrates its role in consciousness raising. Consciousness raising does not always inspire civic sphere action, but it has the potential to do so.

Application

Consciousness raising in the context of case study research means that the participants develop a greater understanding of their lives. They develop a perspective of being able to see their own lives as influenced by the wider societal structures. They also see how they are located within the research question and in turn how this question illuminates the broader social context. In this they develop an analysis of how they are affected by the material conditions in their lives. They may see how the results of the research could be used to change those material conditions and bring about a shift in the experience of others like them. They may see what they might be able to do to change their situation.

To actually accomplish consciousness raising, the participants have to be involved in the research. Ideally, participants would form part of the research team as in any community-based action research paradigm. In these paradigms, they would

be integral in helping frame the research question. They would participate in the design and the approaches to data collection. They may be informants themselves or they may collect some empirical materials. Participants would inform the approaches to analysis and the interpretation of the multiple streams of evidence in a collaborative process. In sharing their understandings with others through a knowledge exchange type of dissemination, consciousness raising among participants can be expanded to a broader community audience. The knowledge exchange format often has an action element built into the purpose of the project. That is, the dissemination to others might envision an extension of the analysis into the community with a goal of a call to action.

Consciousness raising is a process whereby individuals and communities recognize how their individual struggles may not be about only them. They make the analytical connections that there may be systemic reasons for their struggles. For example: the idea of literacy and blindness. The visual sign system creates literacy problems for blind people that the Braille system does not. Even the biological limitation, blindness, does not necessarily cause literacy problems. Rather, it is the way humans have structured literacy that has become problematic.

Similarly, extending this analysis of other forms of ableism, racism, sexism, ageism, and so on, shows how what one person may indeed experience as a barrier is likely exacerbated or even created by how we humans have designed or structured our interactions.

Consciousness raising implies a set of theoretical assumptions about the nature of personal knowledge and how that can be harnessed for social change. The political motive underlying the research may not be discernible or clear at the outset of the project, but it becomes clarified through the research process. This clarification emerges as personal narratives intersect and combine in ways to bring social processes into bas relief. Bas relief is the artistic process by which the figure emerges slightly from its background. In similar process, the personal stories overlap in ways that give rise to a bas relief of social analysis.

To study the development of consciousness raising as a case study, the research team could use a variety of input pathways including individual interviews, focus group discussions, and document analyses that might include formal and informal documents. Such projects might include a longitudinal study of the participants in a collective or a retrospective account of the process. While longitudinal approaches would have the value of seeing transitions as they occur and of providing a rich empirical base for the work, they are also resource intensive. The retrospective approach has the advantage of being at the end of a process and looking back. Because of the tendency to recall the past in light of the present, some interesting and important areas would likely be missed. A retrospective study would be less costly but also not as likely to deliver the depth of empirical materials that a longitudinal study would.

Critical Summary

Consciousness raising is a social practice of emancipation from oppressive power dynamics. The collective works through a collaborative and supportive process to learn about and from each other. The awareness process proceeds through identification of the problem or set of problems, location of the contexts of the problems, analysis of the surrounding or enabling conditions for the problem, and group discussion and analysis of ways that things could be changed. Consciousness raising is based on the idea that collective wisdom can inspire and empower people to change social practices.

Colleen MacQuarrie

See also Action-Based Data Collection; Liberal Feminism; Practice-Oriented Research; Praxis; Radical Feminism; Subjectivism

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CONSENT, OBTAINING PARTICIPANT

Researchers are typically required to obtain the prior consent of those people whom they observe or interact with in the course of generating data. Although it may seem to be a mere self-evident practicality, obtaining consent raises complex issues. It can be seen as methodologically problematic in naturalistic studies (i.e., research on quotidian realities), given the Hawthorne Effect, that is, behavioral changes due to awareness of scrutiny. There is also some concern about its impact on participation rates. Beyond methodological pragmatics, however, there are important ethical considerations. In deference to human dignity and integrity, and except in certain special circumstances (see below), research "subjects" must consciously agree to participate in research, and they must do so freely. Moreover, for consent to be meaningful, it must be *informed*: Essentially, participants must be told about the nature of the research and its consequences.

Conceptual Overview and Discussion

Informed-consent prescriptions are outlined in state-sanctioned ethics codes that regulate biomedical and behavioral research. In the United States, a Code of Federal Regulations applies to research undertaken by federal departments and agencies and to all federally funded research. In Canada, institutions must comply with a Tri-Council Policy if their researchers receive grants from one of the three federal funding agencies. Various professional associations, also, have established voluntary guidelines on the subject.

Core Principles

Despite differences among the various codes, there are core principles that can be summarized here: Potential participants must be told about the research purposes and procedures, including the nature of the involvement being requested of them. These people must also be apprised of any reasonably foreseeable ill effects of that involvement (risks or discomforts), as well as the benefits to themselves or others that will likely accrue. They

may not be pressured to take part in a project or any component of it; they must be allowed, at any time and without reprisal, to withdraw themselves and/or the data they provided. Further, any limits on confidentiality must be made explicit. Finally, participants must be allowed to raise questions and concerns, and be given contact information to facilitate their doing so.

Putting principle into practice is a complicated undertaking that involves many judgment calls. Questions abound. For example, just what information should be conveyed, how much, and by what means? What is the extent of risk, and who should assess it? What constitutes pressure? Conflict-of-interest concerns suggest that matters like these cannot be left to the researcher, and they are not. Federally mandated Institutional Review Boards (IRBs) in the United States, Research Ethics Boards (REBs) in Canada, and similar committees in other jurisdictions are charged with the responsibility of overseeing the process. The ethics-review applications that researchers are obliged to submit to their review committees must cover the topic of informed consent.

In practice, the standard procedure for acquiring participant agreement makes use of the *written consent form*: a prepared statement that participants are given to read and sign prior to becoming involved in a project. Boards tend to favor this consent procedure. Besides the obvious advantage of standardization, the written consent form presents a specific, detailed description that committee members can scrutinize (and, if need be, return for revision). Since signatures testify concretely to knowledgeable agreement, these forms also offer the institution some protection against lawsuits, especially where (as in biomedical research) there is real potential for significant harm.

Written consent forms have, however, been subject to at least two major criticisms. First, critics have argued that they promote goal displacement. Focusing upon forms can lead wary committees to prioritize institutional protection over participant rights. Institutional protectionism fosters language that satisfies legal advisors but is ethically counterproductive. That is, if informed consent is to be more than an expedient formality, researchers must communicate effectively and respectfully, and "legalese" hardly contributes to that end. Likewise, a focus upon consent forms per se can deflect atten-

tion from other consent issues—such as the timing or setting within which the consent process takes place—that can exert undue pressure on participants. Second, insofar as written consent affects rapport, it can stifle some kinds of research. Qualitative researchers, particularly those who work with populations outside the Western mainstream, depend on personal relationships with participants for which rapport is essential. Rapport entails feelings of camaraderie based on trust and mutual respect. By introducing a contractual relationship, written consent can undermine these feelings and provoke suspicion. In fact, a request for written consent can signify disrespect and create discomfort, embarrassing those with limited literacy or threatening those whose experience of officials and authorities has been exploitative. In sensitive circumstances, too, written consent can compromise anonymity and assurances of confidentiality.

Although review board tolerance for alternatives varies, in these circumstances researchers have succeeded in making a case for obtaining oral consent. Clearly, verbal agreements carry their own mix of advantages and disadvantages. They can, as the saying goes, be said to be worth the paper on which they are printed, though the currency in this instance is legal protection of the institution and its researchers. However, oral consent need not make a mockery of the ethics review process, nor compromise participant rights. Researchers can prepare statements that are substantively comparable to a written consent form. These can be submitted for review, and offered (or read) to potential participants who then respond verbally. (Such documents are also used by others who opt for passive consent, where consent is assumed in the absence of explicit objections.)

The route from ideal to practice is fraught with further twists, turns, and pitfalls. There are other important considerations, such as the status of participants. Age and health affect people's capacity to understand, assess, and act upon information. In research with children and legally incompetent adults, consent must be obtained from an authorized third party; and the U.S. Federal Code and Canada's Tri-Council Policy each lists additional stipulations to safeguard participant wishes. Similarly, both codes warn researchers to take special care to ensure comprehension when seeking consent from members of

vulnerable populations (e.g., the mentally ill). The Tri-Council specifically discusses dependency as another relevant factor: Power relations can compromise free choice in some populations (e.g., prison inmates, military personnel, even employees or students). It directs researchers to exercise caution in these circumstances.

Case Studies

Some difficulties are especially pertinent to case study research. When case studies entail long-term involvement in a field setting, consent can become awkward and cumbersome. For example, a participant observer in an informal group, or even a more formally organized body, may find that members come and go over time. Further, case study research is well suited to an iterative approach, where new inquiries or lines of investigation are allowed to emerge as data are generated and analyzed. This can put researchers at loggerheads with assiduous review boards that demand comprehensive design details (e.g., "the" questionnaire). More generally, there is some concern among qualitative researchers that review board standards, unduly influenced by quantitative and biomedical models, make unrealistic demands on them.

Where obtaining consent is not a reasonable goal, exceptions and exemptions are available. Acquiring consent would be thoroughly impracticable in some settings: where large numbers of people congregate (e.g., a rally) or move through an area (e.g., a shopping mall). Naturalistic observation (participant or not) without informed consent is allowable in such venues, where privacy cannot be realistically expected and the research is inherently nondisruptive or unintrusive. It exposes participants to no more than minimal risk (i.e., comparable to that encountered in the course of everyday life).

Review boards may waive the informed-consent requirement under other conditions as well, so long as participation neither impinges on rights nor threatens well-being. These involve scientific necessity and societal good. First, the researcher must demonstrate that deception is an integral part of the project design—that the research *requires* participant naiveté, and there is no reasonable alternative. For example, a study of how group norms affect individual attitudes would be unworkable if

the participant were told that the consensus of other "members" was contrived to disagree with his. When subjects know they have been party to research, prior erroneous information can and must be corrected through debriefing. Waivers may be given to projects involving more complete deception, where researchers go under cover. This "covert" research must be justifiable in terms of the significant social benefit accruing to it. But since legitimation entails values, covert research can be controversial. For example, while few would contest the practice in studies of racial discrimination, covert research on soft-drug usage might be provocative.

Critical Summary

The scientific, ethical, and legal implications of informed consent can be intricate and controversial. Researchers would be wise to consult pertinent federal codes and professional guidelines, as well as their institution's review board policy and practices.

Constance deRoche and John Estano deRoche

See also Ethics; Field Work; Interviews; Naturalistic Inquiry; Participant Observation; Subject Rights

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CONSTANT CAUSAL EFFECTS ASSUMPTION

The constant causal effects assumption holds that a causal effect will be the same across units or across time within a unit. In other words, the magnitude of some causal effect does not depend on the characteristics of a unit or of the period in which it receives the treatment. Rather, every unit that receives a treatment will react in the same manner. While the constant causal effects assumption is convenient for the analysis of some cases, it rarely if ever exists in the world. Accordingly, researchers should be very careful to make sure that the effects they attribute to some cause are as precise as possible and only as generalized as can be proven. Three examples below illustrate how a constant causal effects assumption could be violated. It is then explained how constant causal effects assumptions are another method of thinking about external validity or generalizability.

Examples

Consider the following example. Assume we want to understand the effect of 4 years of university education versus 0 years of university education on future annual earnings. Suppose further that we were able to conduct a randomized experiment in which some individuals were randomly assigned to receive this education (Group 1) and others were randomized not to receive it (Group 2). If we assumed that the causal effects of education were

constant, then we could calculate the effects of a university education by merely comparing the average income of those in Group 1 with those in Group 2. While there may be variance around the mean (i.e., some people within each group make a little more and some a little less), we could calculate some average effect that we would assume to be constant. We could thus make a statement like, "A university education causes an individual's annual income to increase by \$40,000 per year, on average." Problematically, this constant causal effects assumption can be very easily violated. For example, assume that within groups 1 and 2 there are two further evenly sized subgroups (Groups A and B). We now have four subgroups (1A, 1B, 2A, 2B). Now, suppose that the observed annual incomes for each group were as follows. Those in Group 1A earn \$100,000 per year. Those in Group 1B earn \$40,000 per year. Group 2A and 2B members earn \$30,000 per year. The causal effect of a university education appears conditional on whether an individual is a member of Group A or Group B. While the average causal effect of university education still appears to be \$40,000 per year, it is in fact quite different for those in Group A and those in Group B. After a more precise measurement of outcomes we would say that a constant causal effects assumption does not hold.

A real-life example of such a finding is that of Joanne Katz, Parul Christian, Francesca Dominici, and Scott Zeger. Katz and colleagues examine the effects of an antenatal micronutrient supplement on the birth weight of infants in rural Nepal. Comparing the average birth weight of those infants that received the nutrients and those that did not, they concluded that prenatal nutrients increase birth weight by 40–70 grams. However, they go a step further to determine whether this treatment effect is constant across infants. Instead, they find that the prenatal nutrients have the most beneficial effects for infants that are the most vulnerable. By looking only at average effects, Katz and colleagues would not have revealed the most beneficial causal effects of this treatment.

The constant causal effects assumption is not violated only by assuming that causal effects are constant across units. The assumption can also be violated if causal effects vary over time. For example, assume that a case study researcher wants to evaluate the relationship between levels of agrarian organization and the potential for democratic revolution in a society. The researcher may first look at the case of a 19th-century revolution and conclude that agrarian organization played a significant causal role in a democratic revolution; that is, a state requires organized agricultural interests in order to make a transition to democracy. It is possible, however, that such an effect would not occur in the 20th century, as media technology, increased levels of general wealth, and increased levels of education dictate that an organized agricultural sector is not necessary for democratic revolution. The researcher who assumed that the causal effect of such an organization was constant could be potentially mistaken in predicting a country would not make a democratic transition because of the absence of such a sector. Alternatively, the researcher could be mistaken by attributing a successful transition to the presence of such a sector. A constant causal effects assumption can often lead to incorrect inferences about the outcome of a future event, or the cause of some past event.

External Validity and Generalizability

Constant causal effects can also be conceptualized as questions of external validity or generalizable results. A causal effect that is externally valid is not merely one that exists outside of a laboratory, but one that exists when a treatment is administered on subjects who differ substantially in context from the original subjects. The causal effect of organized agrarian interests would thus be said to be externally valid if it explained cases other than the case from which it was inducted. Constant causal effects can similarly be said to be generalizable. A causal effect that is constant can be generalized to all similar cases in any time period. If this is not the case, then an effect cannot be said to be generalized, and cannot be said to constant. Constant casual effects, then, are unconditional. They are therefore quite rare, especially in case study research.

Peter John Loewen

See also Causal Case Study: Explanatory Theories; Cross-Sectional Design; Generalizability; Validity

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Constructivism

Constructivism encompasses a variety of intellectual traditions concerned with the social, subjective, cognitive, technological, and linguistic processes involved in the construction of lay and scientific knowledge. These encompass contributions in psychology, psychiatry, anthropology, and education challenging traditional approaches to learning, communication, and change, and traditions in philosophy and social studies of science questioning objectivism. Constructivism and constructionism as terms are often used interchangeably in the literature, the first term being preferred in psychology and educational studies, the second in sociology. Over the past 40 years, constructivism/constructionism has also been of continuing interest in qualitative social research, alongside increased recognition of the subjective, social, and discursive texture of human experience, practice, and artifacts.

Despite differences, several common themes outline the contours of constructivist traditions. These traditions tend to be skeptical of empiricist foundations of knowledge and of claims of the objectivity and value neutrality of scientific methods. They particularly question the existence of an external and already determined world and social reality, independent of any human knowledge, action, or activity (*ontological realism*). Although focusing on interactions and communication practices, most constructivist traditions question the distinction between (and independences of) a knowing subject and an object to be known. This has been argued on the one hand to conflate

ontology and epistemology, or on the other to subsume ontology into epistemology, as a result. Factual and scientific knowledge are seen as problematic constructions that, depending on perspectives, are viewed as the product of mental processes, technology, and linguistic and social practices or repertoires. The purpose of both lay and scientific knowledge construction is to provide useful, adequate, coherent, stable, or meaningful representations of the world in accordance with particular sets of systemic or sociolinguistic rules and constraints in given contexts.

Conceptual Overview and Discussion

Two different traditions are distinguishable in constructivist/constructionist thought: the *biological-systemic* approach (including the *French School* of constructivism, the work of the *Palo Alto School*, and *radical constructivism*) and *the sociocultural* approach (including *strong constructivism* and *social constructionism*).

The biological-systemic approach draws on Kant's questioning of the sources of knowledge and his argument that a priori categories of thought shape the impressions formed of experience (sense-data). It resonates with early 20th-century concerns of philosophers of science, historians, and ethnologists with the workings of the Mind and materializes the strong influence of evolutionary theory until the beginning of the cybernetic revolution. The biological-systemic approach is accordingly concerned with the mental operations involved in knowing and thinking that contribute to the construction of knowledge and reality in interactive situations between subjects, or subjects and objects.

Jean Piaget and Gaston Bachelard made the earliest constructivist contributions and are regarded as the founders of the French constructivist school. Piaget's *genetic epistemology* is an isomorph of Piaget's earlier psychological work from structures of individual thought to structures of scientific knowledge, which he considers "constructions of the human mind." Piaget's landmark developmental approach to intelligence (*psychogenesis*) from the 1920s onward is a biofunctional answer to the evolutionary problem of the generation of new structures in living systems. It conceptualizes how human intelligence develops, auto-organizes, and

structures itself through the increased differentiation and complexification of individual structures of thought (schemas). This is embedded in an adaptive and systemic view of relations of exchange between individual subjects and an ambient environment (what can be known). Knowledge is part of a system of adaptive transformations resulting from the need by individual subjects both to autoregulate and develop, that is, explore, expand, act upon, and eventually master their environment. The gradual development of more complex, inclusive, and integrative schemes of thought (progress) results from an increased ability by the knowing subject to balance two conflicting dynamics: assimilation (a conservative tendency to preserve existing knowledge structures and shape perceptual inputs accordingly) and accommodation (which facilitates the transformation of interpretative schemes to take into account constraints of the environment). Such dynamic equilibrium (equilibration or adaptation) evolves as human thinking and intelligence progressively structure in simultaneous moves of exteriorization (through action and sensory-motor experience) and interiorization, from an undifferentiated egocentric psychology to more abstract, conceptual, generalized, and objective forms of thinking (allowing causal reasoning to take place). This occurs conjointly with the development of both selfawareness of one's distinctiveness as a subject and objective ways of knowing the world (realism).

A historically oriented philosophy of science, genetic epistemology attempts to explain the progress of scientific theorizing as a system of evolving relations between forms of thought, in terms of its endogenous history and teleology. Arguing for an "objectifying form of relativism" distinct from skeptical and contingent forms of historicalcritical traditions, genetic epistemology sees objectivity as the limit of a series of successive approximations, marking the transcendent progress of reason. Piaget's epistemological constructivism is therefore orthogenic in that it assumes epistemic change to be directional. Scientific thinking is conceptualized as reaching its own points of invariance (objectivity) through equilibration, thanks to the progressive integration of scientific theories into larger and more comprehensive constructions (sociogenesis) and distancing from subjectivity toward the construction of collective norms of thought (psychogenesis).

Parallel with Piaget, Bachelard considers objectivity as a difficult achieved outcome. However, whereas Piaget differentiates between individual subjects and epistemic subjects (the idealized subject of scientific thinking), Bachelard argues against the idea of an unquestionable and immediately apprehended raw material forming a foundation for scientific objectivity. For Bachelard, science never finds its objects as given or as facts-it constructs and "realizes" sets of possibilities. Accordingly, he draws a line between immediate objects (whose form is considered as given, taken for granted, unproblematic, and "recognized" as natural or real) and the objects of scientific discourses, which he formulates as projects (which are cognized, problematic, and relative to a system of conceptual relations that constitutes scientific discourse, coupled with techniques of realization). Bachelard's concept of epistemological rupture (influencing Thomas Kuhn's "paradigm shift") embodies this difference in assuming an ontological discontinuity between science and sense perception. The process of realizing or materializing scientific objects, or phenomenotechnics, is set to embrace both a scientific "technical materialism" producing the materiality of scientific phenomena (or its objects) through techniques of realization (including experimental apparatuses and theoretical conditions of formation), and an applied rationalism, acknowledging the conditions of their application. Phenomenotechnics challenges the "false opposition" between theory and application by stressing how the creativity of scientific thinking is set to develop new possibilities and produces new realities. In 1994, Jean-Louis Le Moigne summarized the legacy of Piaget and Bachelard for constructivist epistemologies, which he importantly formalized into two hypotheses (phenomenology and teleology) and two original principles: systemic modeling and intelligent action. Le Moigne also formalized systemics into a methodological approach based around eight axioms, enabling a non-Cartesian and complex formulation of phenomena in line with constructivist epistemology.

Influenced by phenomenology and cybernetics, radical constructivism emerged as a theory of knowing in the early 1960s in relation to the Palo Alto School, itself shaped by what has been called the Bateson Project (1953–1962) and by the early work of Piaget. Developed by Ernst Von Glaserfeld,

it proceeds from the assumption that there is no way of knowing reality outside the interactive flows of subjective experience. Expanding Bateson's investigation of the construction of scientific explanation as involving the active structuration and abstraction of data, radical constructivism explores the crucial role of fundamental cognitive operations (the selection, distinction, comparison, and connection of elements into information and phenomena) and of repeated methodological procedures in the scientific construction of regularities and causal explanations. Radical constructivism conveys an instrumental and teleological view of scientific knowledge whose value is assessed in relation to its projects, and to how it contributes to organizing "phenomenological experience" into regular and stable patterns (events, rules, types or domains, theories, models, logic) to reproduce results or make viable predictions in relation to action.

Influenced by cybernetics, information theory, and thermodynamics, the Palo Alto School (Ernst Von Foerster, Gregory Bateson, and Paul Watzlawick, in particular) developed a relational view of mind and knowledge in sharp contrast to behaviorist and cognitivist approaches. Contiguous with Piaget's psychogenesis, Bateson and Von Foerster conceptualized individual mental activity as interactive and transformative, but distinctively consider mental operations as functions of differential perception and processing (based on the relative, comparative, and circular evaluation of variations, differences, or changes). Information processing is conceptualized as the continuing comparison of new inputs or events (differences), their descriptions (coded versions of past events), and their effects (transformations) on cognitive activity. Consistent with radical constructivism and Piaget's theoretical account of the irreversibility of time, Palo Alto's conceptualization of cognitive activity as a circular and complex process of illimited, relative, and time-dependent comparison of new to previous inputs (operational circularity) offers a self-referential conceptualization of individual cognition without reference to external reality. Such self-reference is also investigated in Francisco Varela, Humberto Maturana, and Niklas Luhmann's autopoietic conceptualizations of social systems distinguishing themselves and maintaining difference from their environment through recursive operations and a paradoxical form of "closure."

The Palo Alto School also systematized and enriched Bateson's anthropological analyses of human interactions into systemic models of communication that redefined psychology, psychotherapy, and understandings of social order, adaptation, and normality. Presented in Naven in 1936, Bateson's theory of schismogenesis (progressive change in behavior through cumulative symmetrical or complementary patterns of interaction between individuals and groups) anticipates the cybernetic concepts of positive versus negative feedback. Palo Alto scholars later used concepts of feedback, circular causality, hierarchy, and redundancy to study the microdynamics and patterns of interaction at work in the structuring of interpersonal relations and social reality, whether in maintaining existing norms, rules (homeostasis), and beliefs system (self-fulfilling prophecies) or in generating conflicts and change. The structuring of interpretive processes through interaction and communication, giving meaning, significance, and value to information is conceptualized in terms of coding variety, levels of communication (indices of a message), and sequencing (punctuation). In 1936, Bateson also began an epistemological and methodological reflection on the role of observers and conceptual forms of thinking in the delimitation of phenomena and the creation of objective orders of reality. This became part of second-order cybernetics and radical constructivism. Doubting the validity of his own explanatory categories, he showed skepticism toward human consciousness, always purposive, and the "suspect reifications" characterizing most explanatory methods in social science. Influenced by Russell's theory of logical types, he later developed a four-tier model of learning and the concept of the double-bind, the latter characterizing and explaining the communication paradoxes and conflicting injunctions relating to schizophrenia.

Engaging more widely with the construction of cultural artifacts and social objects, the *socio-cultural* approach emerged as part of the post-Kuhnian sociological turn in philosophy of science and incorporates two main traditions: *strong con-structivism* as developed in sociology of scientific knowledge, and *social constructionism* more generally. Both tend to be influenced by the later Wittgenstein on "*language-games*" and Berger and Luckmann on the social construction of reality.

Published in 1966, Berger and Luckmann's agentic approach to social order introduced the "social construction" metaphor to consider the constitutive role of microsocial patterns of relations in creating and maintaining social structure. Here, social reality is conceptualized as an ongoing human production involving the repetitive ordering of human conduct into patterns and routines (habitualization) and their reciprocal and socially controlled typification by legitimate actors (institutionalization). A historical and externalized product of institutionalized agency, the objectivity, facticity, and taken-for-grantedness of social structure is legitimized and controlled through socialization. Knowledge about society conveys the ontological objectivity of institutions as social facts. This legitimates their existence to a significant portion of society while, at the same time, obscuring the intersubjective origins of these facts. Social actors then reinforce these institutions through acting in accordance with their objectified character. Berger and Luckmann consequently claim that social processes influence individual perceptions and beliefs about the world (subjective "reality") that themselves play an important role in the (re)construction of institutions and persons (objective reality).

Berger and Luckmann's thesis made way for the development of constructivist approaches to the sociology of scientific intellectual subcultures and practices. From the 1970s, strong constructivism (Karin Knorr-Cetina, Bruno Latour, and Steve Woolgar, and Michael Lynch) offered a detailed, microfocused, context-sensitive and case-based approach to contemporary scientific laboratory activity emphasizing its local, contingent, and situated character. The role of discursive practices, inscription devices, human agency, and processes of negotiation in the production of scientific facts and phenomena were scrutinized. Ethnographic observation of scientific methods, procedures of practical reasoning, and inference use to generate data, knowledge claims, and factual knowledge (hypotheses, laws, theories, models, or other kinds of representations) showed their creative, negotiated, and interpretive character. The ambiguity of standard procedures left room for differences in their interpretation, application, and evaluation. This led constructivists to reformulate scientific activity as the artful production and development of discursive resources and the transactional product of mundane negotiation between different interests in specific scientific subcultures, challenging rationalist and falsificationist conceptions of science. Expanding on Bachelard's phenomenotechnics and emphasizing the "artificiality of the laboratory itself," constructivists also identified how researchers materially produce phenomena and transform them using technology or inscription devices, anticipating results and "making things work" as part of the "machinery of science."

Social constructionist traditions, developed by John Shotter, Kenneth Gergen, and Jonathan Potter, following Berger and Luckmann, challenge individualistic and neo-Kantian categories of experience, cognition, or mind (what Gergen calls "the impasse of individual knowledge"). They attempt to move beyond the duality of subject-object and the subjectivist-realist views associated with each of them (which Gergen labels endogenic and exogenic). Social constructionism reconsiders the problem of meaning-making and theorizing from an intersubjective, social, and discursive point of view, focusing on conversational, rhetorical, and representational activities. Language, discourse, and interpretive repertoires are primary devices for the construction of social reality, with words taking meaning in the context of ongoing social relationships. For Wittgenstein, language does not represent the world but represents the "form-of-life" through which we engage with the world, as social relations are formed and reformed within language. As habitual, structured, and institutionalized as is social life, language becomes a series of "languagegames." Social life then inevitably reflects the collective negotiation of multiple realities and their often conflicting interpretations. Potter's work on discourse (talk and text) as social practice examines the rhetorics at play in account and fact construction and explores epistemological implications for objectivation that Berger and Luckmann neglect. He first investigates how descriptions are produced in ways that will enable them to be treated as factual, appearing to be neutral and independent of the speaker, and how they might be challenged or undermined. Second, he considers how descriptions may be involved in action and performance. Like Shotter, Potter is skeptical of theorizing as reified and abstracted narrative construction based on literary conventions and encourages its resistance.

Shotter's *rhetorical–responsive* version of social constructionism, however, mostly emphasizes the situated, relational, dialogical, and embodied character of conversational activities and is more concerned with practical conduct. He utilizes Wittgenstein's ordinary language philosophy and Bakhtin's dialogism to place the emphasis of social construction on the quality of *betweenness* or joint action in the dialectical movement of relationships.

Unlike Potter and Shotter, Gergen embraces both a relativist and a metatheoretical position. His thinking is eclectic, incorporating Ludwig Wittgenstein, Martin Heidegger, Hans-Georg Gadamer, Michel Foucault, and Jacques Derrida. He furthers a critique of the post-Enlightenment impetus toward monologic, asocial, and ahistorical systems of thought and referential, foundational, and representationalist treatments of knowledge. Gergen emphasizes the free-floating semantic character of linguistic predicates in relation to events external to language. He conjointly asserts the communal aspects of language whose meaning is situated in and indexical to historically formed "living traditions" (contextual conventions of interpretation, established norms, or usage resulting from socially negotiated agreements). Drawing on developments in poststructural philosophy, Gergen's social constructionism has both a critical and a transformational intent, acknowledging the changing historical discursive character of accounts of self and identity, particularly within psychology, and the ideological texture of scientific production more generally.

Application

Constructivist/constructionist traditions focus on human social processes and activities that are considered both reflexively transformative and self-sustaining, rather than objective artifacts, things, or substances, as phenomena of interest. Like post-structuralism, constructivism dramatically emphasizes the nonobjective dimensions of scientific investigation (e.g., concept generation, definitional work, explanation, claim-making, argumentation, conflict resolution, interpretation of results, evaluation, and establishment of consensus). It makes the unreflexive use of traditional methodological designs problematic as a result. Researchers engaging with constructivism/constructionism should

face the following methodological issues: the problematic status of empirical data and delimitation of phenomena; the problematic status of the researcher resulting from subject-object interdependency or inbetweenness; methodological relativism; the emergence and contingency of research design; and the problematic ethics of results evaluation. There is no distinctive constructivist/constructionist methodology, however, and, from a qualitative methodological point of view, it can still be difficult to differentiate from interpretivist and ethnomethodological research. Indeed, constructivist social research was called "naturalistic" before 1990. In spite of their claim of adopting a new paradigm, Yvonna Lincoln and Egon Guba's naturalistic methodological principles for qualitative research hardly stand apart from interpretivism. Contradictions due to selective relativism in assuming constancy in the definition of phenomena to facilitate comparison of cases (what Steve Woolgar and Dorothy Pawluch term ontological gerrymandering) have also been identified.

Constructivism and social constructionism are more distinctive as perspectives on methodological issues than methods in themselves. However, typical methods adopted include action-research, conversation and discourse analysis, ethnography, clinical studies and group-based methodologies, reflexive interviewing, and visual and auditory elicitation techniques. The types of cases that they look for result from what they consider to be researchable phenomena.

Biological-systemic constructivists stress the intellectual activity of conscious subjects in their constructive and projective mode. Case studies in psychology and education have investigated learning as problem-solving, and the role of sensory experience, individual reflection, and abstraction in understanding and the construction of causal explanation, conceptual artifacts, and theories. Noviceexpert interactions, contexts favoring collaborative work between pairs, and the uses of artifacts have been researched as opportunities for creativity. Systemic and cybernetic modeling offer original case descriptions or simulations of transformative (e.g., invention and design) or regulatory processes in complex environments. Cognitive change or aspects of subjective experience have been studied in cases exploring the dynamics and framing of relations between doctors/nurses and patients in traditional or transformative therapeutic contexts. Action-research interventions include enlightening cases of co-constructed dynamics of change. Here, the role of the researcher's, teacher's, or therapist's subjectivity and personal creativity in the active constructing of scientific realities, and how this subjectivity should be taken into account from a methodological point of view, are considered.

Sociocultural traditions are concerned with local, conversational, and discursive practices constituting the construction and maintenance of social norms, concepts, and categories (e.g., subjectivity, gender, culture, identity, institutions, deviance) as well as scientific factual knowledge, explanation, and argumentation. Ethnographic research in sociology of scientific knowledge produced case studies of scientific knowledge production in laboratories, while conversation and discourse analyses investigated the rhetorics of factual writing or the politics of scientific consensus and authority. In psychology, social constructionist approaches demonstrated the cultural situatedness and discursive texture of traditionally universal concepts like emotions or perception. More generally, experimental writing incorporating co- and practical authorship, self-reflexive deconstruction of narrative traditions, and a diversity of styles and forms of representation have been encouraged.

Critical Summary

Constructivism eschews belief in an absolute foundation of human knowledge and ascription of truth-value independent of the determining effects of human social activity. Human action is understood as occasioned in accordance with systemic constraints or sociolinguistic rules rather than determined by scientific laws. Through its investigation of cognitive and sociolinguistic practices, constructivism/constructionism shows the problematic, socially negotiated, culturally, and linguistically bounded status of factual knowledge and explanatory systems of thought, challenging traditional views of the relations between the particular and the universal. However, debates are ongoing about the extent of the relativism practiced (ontological, epistemological, or methodological). Proponents and critics of constructivist approaches raise the issue of the self-refuting character of linguistically oriented constructivist approaches due to the circularity of language and problems of unbounded reflexivity. Beyond knowledge production, the broad consideration of formative processes can make the construction metaphor difficult to distinguish from other perspectives with which it shares affinities (interpretivism, poststructuralism, critical qualitative inquiry). For instance, social constructionists influenced by critical developments in anthropology have increasingly recognized the politics of field work relations—between researcher and subjects, subjects and other subjects, between researchers, and in wider social contexts because of the inseparability of power and knowledge.

Garance Maréchal

See also Epistemology; Ontology; Philosophy of Science; Reality; Reflexivity; Scientific Method; Subjectivism

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CONTENT ANALYSIS

Content analysis is a tool of qualitative research used to determine the presence and meaning of concepts, terms, or words in one or more pieces of recorded communication. This systematic and replicable technique allows for compressing many words of text into fewer content categories based

on explicit rules of coding in order to allow researchers to make inferences about the author (individuals, groups, organizations, or institutions), the audience, and their culture and time.

Conceptual Overview and Discussion

Content analysis became a relatively established method of systematic analysis during the 1940s. At first, content analysis was a time-consuming process, executed manually, prone to human error, and subject to serious time and resource constraints. Because of this, the technique was limited to examinations of texts for the frequency of occurrence of identified terms or to short texts, being deemed impractical for more complex investigations, for larger texts, or for most recorded communication other than written texts. By the 1950s, researchers had recognized the need for more sophisticated methods of analysis, and as a result they started to focus on concepts rather than words, and on semantic relationships rather than just the mere presence of certain words.

Since then, content analysis has been extended to almost every type of recorded communication, ranging from books, newspaper articles, historical documents, medical records, Web sites, speeches, and communiqués to theater, television programs, sketches and drawings, informal conversation, writing journals, interviews, classroom discussions, lectures, and manifestos of political parties. As a result, today this research technique is used in fields as varied as marketing and advertising, literature and rhetoric, media studies, ethnography and anthropology, cultural, gender and age studies, sociology, political science, psychology and cognitive science, theology, and religious studies.

Since the 1980s, content analysis has also been widely used in media analysis and media evaluation, often in combination with data on media circulation, frequency of publication, readership, and number of viewers or listeners. During recent decades, various software packages have greatly facilitated the execution of content analysis by allowing researchers to sift systematically through large volumes of data with relative ease, and to make inferences that can then be corroborated by using other methods of data collection and data analysis. Today it is widely recognized that the careful examination of communication patterns can

help researchers learn a great deal about individuals, groups, organizations, institutions, and even the larger society in which they are embedded.

Application

Content analysis is possible whenever there is a physical record of communication. This record of communication can be (a) created independently of the research process and internally by the individual or organization under study (as, e.g., newspaper articles, or archived documents detailing household consumption), (b) internally generated and externally directed (e.g., the verbatim transcripts of legislative hearings or committee debates generated by a number of parliaments around the world, which may reflect or obscure the political decision-making process), or (c) produced by the researchers themselves in view of the analysis that needs to be conducted (as, e.g., videotapes of television news programs or commercials, or of debates carried out in the legislature and/or town council). The population of available communications greatly influences the nature of the questions that can be answered through content analysis, as well as the reliability and validity of the final research results.

The most basic quantitative content analysis consists of a frequency count of words, although the assumption that the most frequently mentioned words reflect the greatest concerns does not always hold true. A concept's importance might be overestimated when the word has multiple meanings (as when a record includes references to cabinet "ministers" and religious "ministers," and the researcher fails to set these meanings apart). Its importance can be underestimated when synonyms are used for stylistic reasons (e.g., an author uses the name of the president—"Obama"—and "our head of state" in order not to repeat the word president) or when the author avoids raising the issue represented by the concept as a result of selfcensorship in response to societal bias or political pressure (e.g., the author omits references to current political leaders for fear of censorship).

To avoid such problems, researchers first use frequency counts to identify words of potential interest, and then conduct a Key Word In Context (KWIC) search to test for the consistency of usage of words. Most qualitative research software programs allow researchers to read the whole

sentence in order to see the word in context, a procedure that strengthens the validity of inferences made from the data. Newer software packages, which can differentiate between the different meanings of the same word based on context, have greatly reduced the level of difficulty in conducting content analysis and allowed for ever more sophisticated analyses. In addition, researchers must note that nonstandardized measures can lead to biased results. If, over the Cold War, the Americans uttered a total of 100,000 words, including 100 salient references to weapons' proliferation, while the Soviets uttered 200,000 words, including 200 salient references, one might conclude that the Soviet were interested in the issue more than were the Americans. However, when standardizing the measure to obtain the proportion of all salient words, then we would conclude that both sides were equally interested in the topic. Depending on the recorded communication under analysis, basic content analysis could also include space measurements (column length in the case of newspaper articles or advertisements) and time counts (for radio and television programs).

How It Works

More complex content analysis extends beyond word counts to code and categorize the data. Data are coded with coding protocols decided either before or during the analysis. In a priori coding, categories are established before the start of the analysis. Professional colleagues agree the selected categories, the coding is applied to the data, and revisions are operated, if needed, in order to maximize the mutual exclusivity and exhaustiveness of the categories. In emergent coding, categories are established after a preliminary examination of the data and during data analysis. In this case, at least two researchers review the material independently and select a set of features for inclusion on a checklist; reconcile any differences between their initial checklists; design a consolidated checklist to apply the coding independently; and finally check the reliability of the coding, aiming for at least a 95% agreement. If the level of reliability is not acceptable, the researchers repeat the process as many times as needed to obtain the desired reliability. If the level of reliability is the one desired, the coding is applied on a large-scale basis.

To construct the categories, words with similar meanings and connotations are organized in mutually exclusive and exhaustive categories, which ensures that no word falls between two categories, all words are assigned to the categories, and the categories do not overlap. The text is broken down into manageable categories that could range from a word or a word sense to a phrase, a sentence, or even a theme, and then it is examined using either conceptual or relational analysis. Conceptual analysis establishes the existence and frequency of concepts represented by words or phrases in a given text. Relational analysis goes one step farther to examine the relationships among different concepts in a given text. Dermot McKeone further differentiated prescriptive analysis from open analysis. While prescriptive analysis emphasizes a closely defined set of communication parameters, which can be specific messages or subject matter, open analysis identifies the dominant messages and main subject matter of a recorded communication.

Coding units can be defined physically in terms of their natural or intuitive borders (e.g., letters, newspaper articles, communiqués, poems, or archival documents); syntactically by using the separations created by the author (e.g., words, sentences, or paragraphs); or referentially by employing the referential units created by the author (e.g., a text might refer to Barack Obama as "our president," "President Obama," "the 44th president of the United States" or just "Obama"). In addition, coding units can be defined by using propositional units that result from breaking the text down in order to examine underlying assumptions. For example, a sentence reading "Transitional justice was launched after the new democratic government replaced the dictatorship" is broken down into "The new democratic government replaced the dictatorship" and "Transitional justice was launched."

Typically, content analysis uses sampling units, recording units, or context units. Sampling units, which can be words, sentences, or paragraphs, are the individual units we make descriptive and explanatory statements about. If we wish to examine novelists who wrote on transitional justice, then the individual writers included in our sample constitute our sampling units. Recording units can be ideas relevant for the analysis. For example, we might want to see if some novelists valued transitional

justice for its ability to reevaluate the recent dictatorial past or for preventing future human rights trespasses. However, in some cases it might be difficult for the researcher to determine whether authors present transitional justice as a backward-looking or a forward-looking phenomenon by simply examining their assertions on transitional justice. In this case, researchers use context units, which allow assertions to be evaluated in the context of the writing. The researcher must decide whether the paragraph around the assertion, several paragraphs, or the entire writing is the appropriate context unit.

Klaus Krippendorf listed six questions that need to be addressed in every content analysis. These questions are: (1) Which data are analyzed? (2) How are they defined? (3) What is the population from which they are drawn? (4) What is the context relative to which the data are analyzed? (5) What are the boundaries of the analysis? (6) What is the target of the inferences? To allow for replication, data examined through content analysis must be durable in nature. Several problems can occur when written documents or other types of recorded communication are assembled for content analysis. When a significant number of documents from the population are missing or unavailable, the content analysis must be abandoned. When some documents match the requirements for analysis but they cannot be coded because they are incomplete or contain ambiguous content, these documents must be abandoned.

Use in Political Science

Some of the best applications of content analysis in the area of political science have included determining authorship, identifying trends and patterns in documents, and monitoring shifts in public opinion. Using Bayesian techniques based on word frequency, in 1964 Frederick Mosteller and David Wallace showed that James Madison had indeed authored the Federalist Papers. Three decades later, Don Foster used statistical methods to identify Joe Klein as the anonymous author of Primary Colors, the 1992 fictionalized account of Bill Clinton's quest for the American presidency. After repeated denials, Klein admitted writing the controversial insider's account, leading to unprecedented media interest in content analysis. Authorship is determined by examining the prior works of suspected authors (James Madison, in the case of the *Federalist Papers*, or Clinton's close collaborators in the case of *Primary Colors*) and correlating their frequency of key terms (nouns or function words) with that of the target text.

One of the most remarkable applications of content analysis to political science was undertaken as part of the Manifesto Research Group and the Comparative Manifestoes Project, which estimated policy preferences from the manifestos of a wide range of left-wing and right-wing political parties in more than 50 countries in Central and Eastern Europe, Western Europe, North America, and Asia over the 1944-1989 and 1990-2003 periods. Election programs were taken as indicators of the parties' policy emphasis and policy positions at a certain point in time, and were subjected to content analysis. The analysis ascertained party preferences with respect to foreign relations (anti-imperialism, military, peace, and European integration), freedom and democracy (respect for freedom, and constitutionalism), political system (decentralization, political corruption, and political authority), economy (planning, free enterprise, corporatism, and protectionism), welfare and quality of life (social justice, culture, education, and environmentalism), the fabric of society (traditional morality, law and order, multiculturalism, social harmony), and social groups (labor, farmers, underprivileged). The best-known research resulting from these projects was published by Ian Budge and Hans-Dieter Klingemann in 2001 and by Klingemann and Andrea Volkens in 2006.

While the database generated by the Manifesto Research Group and the Comparative Manifestoes Project is recognized as the most comprehensive and most extensively validated set of policy estimates enabling comparisons over time and space, critics have pointed out that the scheme used to code the political manifestos cannot be changed without jeopardizing its ability to enable meaningful comparative research. Thus, the shortcomings of the coding scheme, most notably its overlapping and missing categories, cannot be adequately addressed without recoding all manifestos all over again, a time-consuming endeavor that many researchers believe would be useless since, by the time the recoding is completed, the new coding scheme would itself be outdated.

Other Uses

An exemplar of content analysis in psychiatry is James Rogers, Jamie Bromley, Christopher McNally, and David Lester's study of suicide notes that tested the motivational component of the existential-constructivist model of suicide. The content analysis of a sample of 40 suicide notes generally supported the four theoretical categories of somatic, relational (social), spiritual, and psychological motivations outlined by the literature. Psychological motivations were found to be the most prevalent, followed by relational, spiritual, and somatic concerns. Notes of completed suicides included more relational motivations than did those of suicide attempters. Older note writers showed more psychological and fewer spiritual motivations than did younger writers. Based on the study, the authors concluded that the existential-constructivist model of suicide was robust and parsimonious, but at the same time they recommended its revision to provide a stronger meaningbased understanding of suicidal behavior.

In business and management, Richard D'Aveni and Ian MacMillan used content analysis to examine the focus of attention of top managers in companies that are surviving or failing bankruptcy. By examining the letters sent to shareholders by senior managers of 57 bankrupt firms and 57 surviving firms, researchers found out that under normal circumstances managers pay equal attention to the internal and external environment. In times of crisis, managers of surviving firms pay more attention to the critical aspects of their external environment and their firms' output, while those of failing firms focus on the internal environment and their firms' input.

Sociologists David Schweingruber and Ronald Wohlstein used content analysis to examine myths about crowds in introductory sociology textbooks. The authors examined the paragraphs on crowds included in 20 introductory sociology textbooks, coding them for the presence of seven crowd myths, claims about crowds that have no empirical support and have been rejected by scholars in the field. After discovering that the number of myths per book ranged from five to one, Schweingruber and Wohlstein made important suggestions for rewriting these chapters and for improving the book reviewing process.

Critical Summary

Content analysis is particularly useful for case study research when more sophisticated tools of analysis cannot be employed because they are more expensive or because their use is restricted by a number of ethical dilemmas. By using quantitative and qualitative interpretive analysis, the examination of available records of communication can allow researchers to gain a great deal of knowledge about individuals, groups, organizations, and institutions, provided that their examination is sensitive to both the context and the purpose of the communication.

Lavinia Stan

See also Critical Discourse Analysis; Document Analysis; Explanatory Case Study; Qualitative Analysis in Case Study; Quantitative Analysis in Case Study; Relational Analysis; Textual Analysis

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CONTENTIOUS ISSUES IN CASE STUDY RESEARCH

Generally speaking, a case study may be considered contentious if (a) there is no agreement among the actors and/or researchers as to "what went on" or "what is going on"; or (b) there is limited access to and/or knowledge of the phenomenon under study, either because such access or knowledge has been considered taboo or because questioning the decisions made in relation to the phenomenon has the potential to affect the real-world interests of dominant players. A contentious case involves situations that are unclear or puzzling, where decisions were not, or are not, easy. In general, contentious case studies concern gray or murky areas at any stage of the process of preparing the case, from research to publishing.

Conceptual Overview and Discussion

Case study research has the potential to raise contentious issues at any stage, from the selection of the phenomenon to be examined (contentious topic), to gaining access to a research site (contentious field site), conducting field research (contentious research process), gaining agreement on data collected, providing feedback to participants, or publishing the study (contentious case research as opposed to publishing more mainstream research).

Research on a contested domain or phenomenon requires an awareness and appreciation of and respect for different voices and interpretations. Rather than imposing an artificial convergence of incompatible views or positions, the researcher should assume and acknowledge that there is no consensus. A contentious topic may be formulated as a paradox, a contradiction, or a dilemma. The starting question is empirical, open-ended, and descriptive, most often based on observation of current events, facts, and trends. The case may focus

on a process (how things have unfolded over time), the construction of a causal system of explanations based on identified independent variables [Y = f(X1; X2; X3...)], or a comparative study of the behavior of individuals, groups or societies across two or more phenomena. The design and the methodology of a case study on a contentious topic may be likened to detective work; the researcher follows various pathways and allows the tension between various hypotheses to exist. He or she also pays attention to what have traditionally been undervalued data: seemingly insignificant details in the case, as well as his or her own personal, emotional, cognitive, and relational limitations.

Contentious case studies are a form of process research; Karl Weick encouraged researchers to use verbs in their gerund form ("—ing") to stimulate process thinking. Analysis of contentious issues relies on the search for new patterns in previously undervalued or seemingly irrelevant or meaningless data. Working in a team in a climate of open debate contributes to the quality of process research on contentious cases.

Publishing contentious cases or case research that has been contentious during the research process may be difficult, for several reasons. Journal editors who hesitate to publish qualitative articles may be reluctant to accept the additional risk of running articles that are both qualitative and contentious. In addition, current journal guidelines do not generally allow for a full description of the efforts required to access, research, and obtain clearances for the content of a contentious case study; in most cases, it is difficult to publish a rigorously detailed description of the methods used in contentious case research beyond brief, formal explanations.

Application

Examples of contentious issues in business ethics include conflicting values, such as corporate versus organizational values; conflicting analysis of different and discordant voices from diverse stakeholders; the interplay between different levels of analysis and individual and collective action; unresolved conflicts regarding the interests of one group over other groups; or issues related to different time spans (a good decision at one moment in time may be detrimental in the long run).

Contentious case study research is useful for two purposes in two contexts: (1) for the advancement of research, mainly in academic research settings; and (2) for teaching in fields that use problem-based case methods, such as management, law, and medicine.

Case study research can be conducted using primary sources (interviews) or secondary sources (data gathered by other researchers or from archives and publically available documents). Examples (a) in Business Administration include Karl Weick's research on the Mann Gulch disaster, or the classical Cuban missile crisis in which Graham Allison proposed three explanations for the decision-making process the Kennedy administration adopted to confront the Cuban crisis; and (b) in business education include the Dark Side of Business Case Competition with the Critical Management Studies interest group and the Management Education division at the Academy of Management.

Critical Summary

Contentious issues can arise at any stage of designing, conducting, and publishing case research. Potential advances in research include highlighting a wider range of new and different interpretations, and shedding new light on a phenomenon leading to original conclusions. High-quality case studies on contentious issues require researchers to think strategically about all these stages and dimensions. A specifically challenging situation happens when all the research has been successfully conducted but the challenge of publishing is too high. Working on contentious cases is difficult, but offers a very rewarding way of gaining firsthand experience on critical contexts.

Emmanuel Raufflet

See also Causal Case Study: Explanatory Theories; Critical Incident Case Study; Extreme Cases; Radical Empiricism

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CONTEXTUALIZATION

Case studies are often contrasted with survey research on the basis that surveys abstract specific social phenomena from their wider social contexts, whereas case studies seek to understand specific social processes in a contextualized way, as parts of a wider configuration of social relations. This contrast may be unfair to some survey research, but the argument that detailed case studies place a premium on contextualization captures a central feature of case study research design.

This imperative of contextualization in case study research has several different aspects that involve both internal and external contextualization. Internal contextualization locates any specific aspect of the case in the context of the overall configuration of social relations and processes characterizing that case. External contextualization locates the case as a whole in the wider social context in which it operates. The implications of addressing context in case study research can be explored by clarifying the distinctive features of each of these modes of contextualization and the different ways in which they are pursued in case study research and analysis.

Conceptual Overview and Application

Internal Contextualization

Internal contextualization highlights the holistic features of case study research, addressing the interrelationships between different aspects of the case and analyzing the significance of specific events, narratives, and processes in relation to this wider configuration. Thus a case study of a workplace may locate the day-to-day survival strategies of workers in relation to specific management policy repertoires and their implementation by varied technical and supervisory specialists, and in relation to tensions and alliances between different categories of workers with distinct occupational, gender, or generational experiences. This is an agenda pursued in exemplary fashion by Jean-Pierre Durand and Nicolas Hatzfeld in their study of life on the line at Peugeot.

This concern for internal contextualization underwrites the importance of both ethnography and mixed methods of research in the conduct of case studies. Ethnographic research is characterized by attention to the activities of participants in real-life settings and is thus marked by the explicit contextualization of activity and interaction within its immediate social context. Meanwhile a combination of methods, such as participant observation, key informant interviews, surveys, and documentary research, affords multiple bearings on the configuration of social processes and social relations under investigation. Case studies vary in the mixtures of methods they utilize, and the scope of each study is also influenced by its analytical focus and the research resources available. Nevertheless, a good case study research design must utilize a set of research methods that will be able to satisfy this key requirement of effective internal contextualization.

In pursuing such internal contextualization, a central concern of case study research is for the researcher(s) to be open-minded in exploring the salience of different aspects of the social organization of their case for understanding and explaining focal features of that case. Another imperative is to recognize that this internal contextualization is necessarily selective rather than exhaustive, even in the most detailed of case studies. This relationship between open-mindedness and selectivity in pursuing the holistic and contextualizing agenda of case study research presents a persistent challenge, and different traditions of case study research respond to this challenge in different ways. Thus internal contextualization may be pursued differently by postpositivists, interpretative sociologists, critical realists, or postmodernists.

One possibility, highlighted by postmodernists, is to emphasize the coexistence of a plurality of

potential accounts of any given case setting, and to highlight the ways in which a specific authorial voice underwrites any particular story of the case. An important implication of this approach is that the substantive contextualization of phenomena within the case study should be integrated with an authorial contextualization, reflecting upon the ways in which the researcher's presence inflects the processes of field work and writing, as in Dorinne Kondo's reflexive discussion of power, gender, and discourses of identity in a Japanese workplace.

A rather different approach, advocated by critical realists, among others, is to emphasize the theoretically driven character of case study research and analysis, and the ways in which the theoretical agenda of the researcher guides the logic of selectivity. Here the substantive contextualization of features of the case study is integrated with a theoretical contextualization, reflecting on the ways in which theorizing informs decisions about the design, conduct, and analysis of the case study. While these different metatheories give priority to distinctive forms of contextualization, it also remains possible for authorial contextualization and theoretical contextualization to be combined, an argument advanced by Michael Burawoy in his discussion of the different ways in which the distinctive findings of case study revisits can be understood.

External Contextualization

The other face of case study contextualization involves the external context, the wider setting within which the case itself is embedded. This distinction between internal and external contexts requires a conception of the boundedness of the case being studied, though drawing such boundaries between case and context remains difficult.

Nevertheless, the very conceptualization of a case to be studied implies an analytical and methodological boundedness, which can be thought of in terms of a contrast between the detailed investigation of structures, relations, and processes within the case and a more summary accounting of features outside the scope of such detailed investigation while remaining pertinent to developments within the case.

What counts as salient features of the external context of any specific case study may be suggested

both by the theoretical framework within which the research is conducted and by the process of empirical investigation itself. Such considerations may lead researchers conducting a case study of a school, for example, to attend to features of local and national state policy, the neighborhood, home backgrounds from which pupils are drawn, and/or the roles of teachers' unions and professional associations. The purpose of mapping the external context of any given case study, then, is to situate the case within a wider set of social relations. Such contextualization may operate at a wide variety of scales, from characterizing key features of the global and regional institutions and processes that surround and impinge upon a study of a specific nation or state to mapping features of the immediate institutional context surrounding the intensive study of interpersonal relations in such settings as a household.

The methodological implications of this contrast between internal and external contextualization are strongly formulated in Michael Burawoy's discussion of the "extended case study method." He suggests that, from the vantage point of any given set of case study researchers, these wider features of the external context are necessarily reified as structural conditions surrounding the case. At the same time, the social processes sustaining such external contextual features remain open to detailed study by other researchers. Again, the precise ways in which such features are conceptualized will depend upon the metatheoretical and theoretical approaches of different researchers, and the ways in which these interplay with empirical findings.

Ethical Issues

The scope and character of external contextualization will vary between case studies but should allow the researcher to explicate the salience of wider conditions that impinge upon the specific case and readers to locate the case study in relation to others in similar or different external contexts. However, the external contextualization of case studies also poses important ethical issues. The clear and detailed specification of key features of the external context of a case study, whether of an enterprise, hospital, street gang, or social movement, may jeopardize efforts to

conceal the identity of the case and potentially undermine the anonymity of research subjects. Often researchers respond by limiting the specification of the external context, both to honor promises of anonymity to informants and to protect research subjects more generally from foreseeable harm. This is often ethically crucial, but it should also be recognized that it comes at the cost of attenuating the capacity of researchers to present, and readers to understand, the case in its wider context. This has implications for critical scholarly evaluations of such case studies, as it may limit the scope of revisits, reappraisals, and comparisons with other cases.

Critical Summary

A widely recognized virtue of case study research is that it places specific social processes within their wider contexts, rather than decontextualizing them. This involves both internal contextualization within the case and external contextualization within the wider setting, and it may also be accompanied by authorial and theoretical contextualization.

Tony Elger

See also Anonymity and Confidentiality; Anonymizing Data for Secondary Use; Bounding the Case; Ethics; Extended Case Method; Holistic Designs; Naturalistic Context; Naturalistic Inquiry

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CONTRADICTION

There are three main ways that we can look at contradiction in the context of case study research. The first is the conventional usage in logic and in science that a contradiction is a logical incompatibility between two or more propositions. Aristotle's law of noncontradiction states, "One cannot say of something that it is and that it is not in the same respect and at the same time." The second usage, especially common in social research, is the axiom that people find perceived contradictions in their lives uncomfortable, and will do their best to resolve them. Finally, a recent trend sees contradiction as inevitable, allowing us to see and explore the inherently mutable nature of both human experience and our understanding of that experience.

Conceptual Overview and Discussion

For many years, case study research derived its understanding and use of contradiction from the positivist models of science. Something cannot be "true" and at the same time "not true." At a theoretical level, a contradiction arises when two ideas are mutually impossible. Writers in the Marxist tradition, which was built on the Hegelian ideas of thesis, antithesis, and synthesis, argued that contradictions could not exist in reality because reality, once you have established the truth of the matter, does not contradict itself. Only our evaluations of reality can contradict each other. Marxist theorists argued that the job of theorists was to understand the "true" situation and analyze it so that the potentially revolutionary class could see the contradictory situation that surrounded it and move to resolve it. This is a version of the positivist understanding of absolute truth, that is, there is one reality and one truth and it is the work of the researcher to discover that reality.

Many case study researchers have worked with the assumption that the elements of their case must be consistent with each other. If one element of the case appears to contradict the evidence of another, then the researcher sees it as his or her obligation to find out which one is "true." These contradictions, which must be hunted down and either eliminated or explained, can be between cases or within cases. If it is a multiple or comparative case study, then the researcher must distinguish between difference and contradiction. For example, a study of immigrant adaptation might find that migrants have different experiences, which can be accounted for in differences in the social, economic, or cultural context of both the sending and receiving nation. If, however, the study shows that ethnic similarity is correlated with speed of assimilation, but then finds that ethnically similar women have a much harder time than ethnically dissimilar women, the researcher must explore this apparent contradiction. The contradiction thus becomes the focus for continuing analysis.

Researchers tend to find contradiction within a case much more troubling, especially within a case of one person. If the subject of the study says one thing at one point, and then what appears to be the opposite at another, the researcher has either been inclined to dismiss one statement as "not true" based on his or her understanding of the context or has noted that the subject holds contradictory views and tries to account for those differences, again, according to context. However, long before the "postmodern turn" in sociology, some researchers, especially those involved with working across classes or ethnic groups, noted that "consistency" and "rationality" were not general imperatives but associated with middle-class white educated strata. What was called "hegemonic ideology" in the 1970s (associated with a Gramscian perspective) and is now more often referred to a "dominant discourse" (associated primarily with Foucault's work) had different impacts at different levels of society. Marxist scholars, such as Braverman and Beynon, pointed to the "contradictions" between the version of capital-labor relations as put forward by the management and the media, and the "working-class consciousness" based on workers' experience.

For postmodern scholars who challenge the whole apparatus of the metanarratives of the enlightenment, including the claims of rationality and consistency, previous understanding of contradiction as a puzzle is meaningless in a world now conceived of as transient, permeable, unknowable except in the most partial and fragmentary ways. Some scholars, especially feminist scholars, have looked at standpoint theory as a way of

examining apparent contradictions in both experience and interpretation as wholly rational responses to a multifaceted world.

Application

Contradiction does not appear as a research tool, or even as an entry in the index of most methodology texts. Yet it is an important part of the background assumptions of all case study researchers.

Mao Zedong provides an exemplar of a rigid application of the Hegelian concept in his essay, "On Contradiction." First describing the philosophical law of contradiction, he lays out the political implications. Capitalism as a social system is inherently contradictory because of the conflicting and mutually exclusive collective goals of the two primary classes, he contends. The differences between the classes are so contradictory that there is no mutually acceptable resolution, which forms the basis for the argument for revolutionary change.

While contradiction is rarely explicitly presented as either a problem or a solution in case studies, we can see how it pushes researchers to new levels of analysis. For example, Beynon's 1970s case study of a Ford Motor plant, and especially of one union leader within it, provides careful explorations of contradictions between what Moss observed in his daily life as a worker and how it was presented to him by management. Beynon's argument is based in the inherent intelligence and ability to see such disjunctures and to develop an alternative analysis that better fits the facts as the worker sees them. This kind of approach insists that there is an underlying rationality to the world we live in, although it may be hidden by dominant social structures and accounts of it.

This differs from the many studies that use instances of apparently contradictory statements of fact or views within the same case to explore further for the reasons. A good example of how this can work comes in Wendy Hollway and Tony Jefferson's study of fear of crime. Their analysis rests on the disjuncture, or contradiction, between the degree and kind of fear of crime that people hold and the objective assessment of the level of actual danger from crime. Among the observations that they make are that the same words cannot be presumed to mean the same things to everyone. As

they point out, the phrase "alone in the dark in a public space" might suggest mugging to older people, sexual assault to women, or an opportunity to fight to young men. They also argue that the traditional sociological assumption of a socially constructed, rational, information processing subject cannot explain the discrepancies that are found in fear–risk research. For this they developed the concept of the "defended" subject based on Freud's notion of "splitting." This means that subjects so "defended" can hold entirely contradictory ideas in their heads at the same time, each with its own validity.

Some postmodern and poststructuralist writers appear to discount contradiction as simply part of the power structures of society that construct us, as subjects, discursively. In much of Foucault's writing, for example, the individual subject effectively disappears as a conscious and independent agent of his or her own life. However, researchers, especially those working in the standpoint tradition, such as Dorothy Smith, have been able to use new thinking to provide far more complex accounts of how disjunctures (i.e., contradictions) between experience and "relations of power" can reveal how people outside those relations, for example single mothers, can construct themselves as knowers and actors.

Critical Summary

This entry is unusual in that "contradiction" is not often discussed openly in methodology texts or even in the analysis of case studies. Yet it is deeply sown into the background assumptions of researchers. This entry identifies a continuum of ways in which contradiction has been treated in research, ranging from the rigid philosophical interpretation that only one thing can be true at a time, through sociological uses of instances of contradiction as an opportunity to explore a subject's ideas in more depth, but with the assumption that there is an inherent strain toward consistency, to a postmodern approach, which treats contradiction as illustrating the complex and transient nature of what we take to be reality.

Marilyn Porter

See also Case Study and Theoretical Science; Ideology; Juncture; Sensemaking

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CONTRIBUTION, THEORETICAL

In contrast to quantitative research, which aims to generate numerical conclusions based on statistically significant data, a crucial contribution of case studies is the affirmation or development of theory, which can then be generalized or transferred to other settings.

Conceptual Overview and Discussion

The term theory does not have a fixed, universal meaning. Reflecting the competing research paradigms, the word evokes various meanings: the term theory might suggest a determining law, or system of laws, as in the natural sciences, or a construct or set of constructs for ordering and understanding phenomena. Irrespective of the different principles informing the term, theory usually has a central role in case study research. In all but descriptive case studies, the fundamental purpose concerns theory: Case studies either test a particular theory, develop theory, or both. It has been argued that developing theory inevitably involves an element of testing and therefore the two are interlinked. It is by means of this process that a theoretical contribution might be made.

Research projects usually begin with a review of the relevant literature. It is by means of the literature that the researcher will engage with the existing theoretical explanation of the topic in question. For example, if the topic is the incidence of teenage pregnancy, then the range of theories explaining the occurrence of this phenomenon might be ascertained and evaluated. With the exploration of the current strengths and limitations of explanations, the theoretical approach to be tested or developed can be identified. The theory or construct to be

tested or developed will inform the choice of case or cases to be studied, the data to be gathered, the methods by which the data will be gathered, as well as the way in which the data will be analyzed. The project will conclude by discussing the original research question in light of the theory and the empirical evidence gathered.

During the progress of the project, the researcher applies a process of deductive and inductive reasoning. Although often thought of as separate, it has been argued that in case study research, the two processes are blurred and mutually beneficial. Similarly, it has been argued that theory testing and theory development are inevitably associated, and that the interplay of both is implicated. The term retroduction has been coined as a means of describing this interplay. Retroduction is therefore the circular process by which the researcher tests his or her theoretical ideas against the emerging data, reframes the ideas, and retests until the conclusions reached are deemed trustworthy. Multiple cases might improve claims to trustworthiness in that the research can be replicated. The replication may facilitate confirmation of the emergent theory, but if not, the theory itself will be redeveloped to take account of the new data. The process of replication may continue as long as is necessary and/ or feasible.

The conclusions of multiple cases or even a single case study are generalizable, or at least transferable to a similar context, providing that the research process is trustworthy (measures of trustworthiness depend upon the paradigm in which the research has been located). Two examples of the way in which case study research has contributed to theory are provided below.

Application

In the 1990s, Wendy Hollway and Tony Jefferson became dissatisfied with the level of knowledge on the fear of crime in the United Kingdom. Knowledge that had predominantly been produced by large surveys measured the level of fear in specific populations (such as men or women) without examining or theorizing what was meant by the fear of crime for specific individuals, or by accounting for the difference in levels of fear between individuals who shared similar social circumstances. For Hollway and Jefferson, the knowledge base was

weak because most previous research had assumed individuals behaved in accordance with the principles of cognitive psychology or were wholly determined by their social environment. Furthermore, survey-based methodologies had not facilitated an understanding of the individuals' lived experience.

Following the literature, Hollway and Jefferson tentatively proposed an alternative theory that challenged the idea that fear of crime resulted from each individual's rational assessment of risk. This theory relied on a different understanding of the human subject: a psychosocial understanding that took into account unconscious processes concerning anxiety. Hollway and Jefferson set about testing their ideas and developing their theory by means of interpretive research that involved the analysis of interviews with individuals or "cases."

Hollway and Jefferson recruited 37 individuals who were different in age, sex, and residential location—that is, they lived in either a high or low crime area. These characteristics informed their recruitment (or selection of cases) as the existing literature identified them as significant. Each individual was interviewed twice, in accordance with the principles of biographical narrative technique. While each respondent's biographical account was interpreted as an individual case study, a comparative analysis was also undertaken.

Hollway and Jefferson were able to show, by means of their empirical evidence, that fear of crime might have different meanings for different people, irrespective of their social characteristics or rational risk of becoming a crime victim. Further, they were able to offer a theoretical explanation of why this was so. In consequence, by testing and developing their theoretical ideas by means of case studies, these researchers have made a rich theoretical contribution to the already established body of knowledge on the fear of crime.

Like Hollway and Jefferson, M. N. Ravishankar and Shan L. Pan have also undertaken interpretive case study research. Rather than undertake a comparison of multiple cases, however, Ravishankar and Pan have examined the single case of India Inc., a global business organization selling a range of services, but most specifically information technology (IT) solutions. Over recent years India Inc. has achieved success and rapidly expanded the number of its employees. It has a complex organizational

structure that involves not only the central structure, which is based in India, but also India Business Units (IBUs). IBUs are decentralized structures staffed with India Inc. employees (outsourced vendors), but located within organizations of their long-term customers.

To improve its performance, the company has invested in the development of a knowledge management (KM) strategy. This strategy is multifaceted, but most important is a portal that enables the sharing of knowledge and expertise, and in which all staff members are expected to participate. This portal has been successful in many respects, but staff members based in IBUs are less likely to comply with the expectation to participate in knowledge sharing. It is to this problem that researchers Ravishankar and Pan turned their attention.

The implementation of the strategy on knowledge management was explored in the light of the distinctive organizational structure. Literature on organizational identity and organizational identification was explored and the case study was designed to answer two research questions: First, how do dual organizational identifications influence compliance with an organizational KM initiative, and second, how are dual organizational identifications managed in a context of organizational KM initiatives? Multiple sources of qualitative data were drawn upon and the resulting materials interpreted by means of an iterative process: Data were read and reread in the light of the pertinent theoretical concepts drawn from the literature.

The case study conducted by Ravishankar and Pan contributes to knowledge in the fields of knowledge management research, business strategy, and management practice. In terms of its main theoretical focus, it offers empirical insights that contribute to the development of theory on organizational identity and organizational identification. According to the authors, as the research was conducted in one particular industry, the theory may be transferred only to a similar setting. For the theory to be widely generalizable, replication of the project in a range of industrial settings would be required.

Critical Summary

The potential to make theoretical contributions is a particular strength of case study research. In a new and unexplored area, contributions can be original. In established areas, contributions are more likely to be incremental developments of the work of previous theorists: New empirical evidence from case study research can provide theoretical insights that can confirm or challenge existing theory. In this way theoretical contributions, which have to be appreciated in terms of the competing research paradigms, develop the knowledge base of a range of disciplines.

Elizabeth Harlow

See also Deductive–Nomological Model of Explanation; Generalizability; Inductivism; Theory, Role of; Theory-Building With Cases; Theory-Testing With Cases

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CONVERSATION ANALYSIS

Conversation analysis is the study of talk-ininteraction. It is a methodological approach that grew out of phenomenology and ethnomethodology and is concerned with uncovering the rules and structures of everyday, mundane social actions as captured through verbal (and nonverbal) interactions. Conversation analysis takes as its starting point that all interactions are meaningful to those who produce them and that there is an underlying pattern of orderliness to even the most routine interactions.

Conceptual Overview and Discussion

Conversation analysis views social actions as ongoing practical accomplishments worthy of indepth examination. At the heart of these social actions is order/organization/orderliness that can be discovered, described, and analyzed to produce formal terms that capture the underlying order. George Psathas discusses seven basic assumptions of conversation analysis, reinterpreted here as four assumptions.

First, order is *produced* by those who engage in social action. Ordered patterns of interaction are determined by the individuals who engage in social action; order is not the result of the researcher's preformed theoretical concepts. Conversation analysis is always an exploratory process and it requires the researcher to approach each interaction (no matter how mundane or brief) open to unique patterns of orderliness.

Second, order is both *context sensitive* and *context free*. It is context sensitive in that each interaction is subject to its own order, that is, patterns of order do not necessarily transfer across situations. At the same time, however, order *can* be repeatable and recurrent across situations. Order is context free in that the particularities of the individuals involved (e.g., personal histories, gender, occupation, type of social action) do not determine the underlying rules and structures of the orderliness. Ethnography is not required to uncover the orderliness of talk-in-interaction. It is important to note that some conversation analysis researchers argue that ethnography is an important complement to their work.

Third, conversation analysis is grounded in description. It is the task of the researcher to discover, describe, and analyze the produced orderliness of talk-in-interaction. Once the rules and structures of social action are determined, formal terms can be employed to capture the ordered patterns of interaction.

Fourth, conversation analysis is not concerned with generalizability. Generalizability and the frequency and scope of social interactions are second to the discovery, description, and analysis of the structures through which order is produced. Henry Sacks is considered the founder of conversation analysis. Dalvir Samra-Fredericks and Francesca Bargiela-Chiappini note that Sacks's early research with Harold Garfinkel, as well as the research of Emanuel Schegloff, Gail Jefferson, and Anita Pomerantz form the groundwork for the development of the field, beginning in the 1960s and 1970s. George Psathas argues that Erving Goffman's work on the study of interaction in everyday situations also played a critical role in creating space for the development of conversation analysis.

It was through Sacks's employment and case study research at the Suicide Research Center in Los Angeles that conversation analysis as a methodological approach was developed. Sacks began to audiotape telephone calls to the Center to examine the interactional interchanges between Center employees and callers. The recorded tapes allowed him to review the talk-in-interactions over and over to uncover the orderliness of the interactions. Recording talk-in-interaction is now integral to the research design of conversation analysis.

Sacks concluded that initial exchanges between employees and callers were symmetrical in nature and that there was a recurrent aspect of opening sequences. He coined these sequences "units." He noted that these units appeared to occur in turns of two; the first turn was produced by speaker one and the second turn was produced by the second speaker; the context of the first turn of the unit was relevant to the context of the second turn of the unit; and the second turn was related to the context of the first turn of the unit. As a result of this research, Sacks revealed that the seemingly mundane of everyday life was subject to formal description and structures. Talk-in-interaction was comprised of methodical utterances. Later research focused upon uncovering the complexity of turn taking of talk-in-interaction. Sacks's research, and that of the other founders of conversation analysis, revealed that at the heart of everyday social action, sequential structures of action could be discovered and that these units of action were truly interactional in nature because they involved more than one person.

Order is assumed in conversation analysis methodology and patterns of orderliness are understood to be dynamic and processual in nature. The researcher's task is to discover, describe, and analyze the orderliness of interaction. The researcher does not usually set out with a predefined focus of discovery and already conceived theoretical categories. Conversation analysis is exploratory in nature. Psathas notes that the early stages of such research are characterized as "unmotivated looking." Data should be naturally occurring and not produced for the purposes of the research study. As noted in Sacks's early research, recording of data (audio or video) is critical to conversation analysis research so that interactions can be replayed and transcribed. The recording of data also facilitates the collection of a broad scope of interactions, to be narrowed later in the transcription process.

In case study research (e.g., a specific organization, occupational group, ethnicity), it is common that the scope of interactions collected will be varied and the number of interactions large. The transcription process is not about turning the spoken word into text so that it can be analyzed into more meaningful concepts. The transcription process encompasses the process of discovery, description, and analysis to uncover the rules and structures of ordered patterns of interaction. The transcription process aims to preserve the authentic "talk" of the interaction, rather than drawing out underlying meanings of the talk-in-interaction (e.g., [ring] 1.A: h'llo:? 2.C:hHi:, 3.A: Hi:?). Transcribing interactions requires the use of a system of symbolic notations. Gail Jefferson's transcription symbols are commonly used as a guide through the transcription process (e.g., ? = rising intonation, underlining or italics = emphasis).

Conversation analysis requires researchers to include transcripts of data in their written forms of the research so that others can examine and interpret the description and analysis process directly. Generalizability is not the goal of the conversation analysis researcher. An instance of something is an occurrence, and the frequency of the occurrence is not important in uncovering the order of that occurrence. At the same time, once the unit is discovered, the researcher may examine additional material to find further instances and develop a collection of instances. Psathas notes that a collection of instances may form rich discoveries revealing that the original unit is more complex than first noted or that the second instance is different from the first.

Intrinsic case study research aligns particularly well with conversation analysis methodology. The

intrinsic case is often exploratory in nature, and the researcher is guided by interest in the case itself, rather than extending theory or generalizing across cases. In this way, since the intrinsic case study researcher does not start with a preformed theoretical lens, conversation analysis can facilitate the uncovering of ordered patterns of interaction unique to the case under study.

Application

Marjan Huisman presents an interesting application of conversation analysis that draws upon case study research from four Dutch organizations. She sets out to discover the rules and structures of talkin-interaction that characterize decision making. She views decision making as an emergent, incremental activity in which members move forward step by step toward the decision. A decision is defined as a "commitment to future action." Adopting a conversation analysis approach allows her to identify patterns of interactions and uncover the "structures" of how individuals create meaning in decision making.

The data for the research come from two studies involving four different Dutch organizations. The data from the first study include 12 management meetings videotaped at three different organizational settings: a senior management team of an information and communications technology company, a management team of a service department in a university hospital, and a board of directors of a higher professional education institution. The data from the second study include an audiotape of one key meeting of teaching staff at a Dutch high school. She supplements the transcriptions with interviews and participant observation. As advocated by conversation analysis, Huisman includes her transcription symbols—for example, [DIM] = untranslatable diminutive, (.) = pause of less than 0.4 seconds, cut o- = word cut off—and the English transcribed episodes as well as the original Dutch transcribed episodes.

In the discussion of her findings, Huisman presents four decision-making episodes to highlight three key conclusions: The past, present, and future play a role in decision making, and decision making is interactional in nature; the specific interactional procedures that contribute to a "decision" will depend on the cultural norms of a group (or

organization); and decision making is subjective in nature, whereby the identity of participants contributes to the specific pattern of interactions that emerge.

In episode one, Huisman highlights how decision making is collaborative and interactional. A decision is not captured in one specific utterance. In order to understand the rules of how the decision is made, an analysis of the whole episode of talk-in-interaction is required. Both verbal and nonverbal talk-in-interaction contribute to the achievement of a future state of affairs. In episode two, Huisman argues that decision making is emergent and that often a decision is not explicated as a "decision"; rather, it just happens through talk-in-interaction. In this second episode, the future state of affairs is negotiated. One speaker proposes, then another speaker rejects, then an alternative is proposed, and then the future state of affairs is confirmed. Not every attempt to arrive at a future state of affairs will result in a decision. A decision-making episode can end without a decision.

Episode three highlights how it can sometimes be unclear whether a decision has been made or not. A lack of clarity of the talk-in-interaction may mean that we will not know from a single episode if a decision has been made. We may have to wait until the future state of affairs happens in order to know if a decision had been made in the studied sequence. Moreover, Huisman also notes that what counts as a decision will be largely dependent upon the norms and patterns of behavior of the particular group or organization under study; that is, decision making is context sensitive.

Finally, in episode four Huisman draws attention to how the speaker's subjectivity contributes to the procedures of a particular decision. First, the speaker's interpretation of the past influences how it is told in the present. Therefore, talk-in-interaction is not neutral. Second, the identity of the speaker contributes to the patterns of interactions that are uncovered in talk-in-interaction. Speakers' roles, goals, and interests will inform the underlying orderliness of the interaction. Third, an utterance may have different meanings for different people, even when they are all present during the same episode, making the talk-in-interaction rather complex to discover, describe, and analyze. Overall, Huisman concludes that decision making

is not only bounded rationally, as argued by Herbert Simon, but also socially and linguistically.

Dalvir Samra-Fredericks employs both conversation analysis and ethnography methodologies in her exploration of how strategy is accomplished through the everyday talk of senior managers. She argues that a focus upon the naturally occurring talk of strategists (in real time) provides a richer understanding of the mechanics of how strategy happens, more so than through an analysis of strategists' reports (e.g., through interviews) of how it happens. It is through talk that strategists establish and negotiate meanings and articulate their perceptions of the organization, its stakeholders, and its competitive positioning. It is also through talk-in-interaction that the possibilities of the organization are made sense of and accomplished. In this piece, Samra-Fredericks focuses upon how one strategist (S1), in interaction with five others, effectively persuades the others of his view of the past and future. Through S1's talk-ininteraction tactics, he effectively sets in motion a series of decisions and specific outcomes.

Samra-Fredericks's data come from a private sector organization in which she had access to managers' talk over time (12 months) and space (e.g., over lunch, in meeting rooms). She also draws upon ethnographic experiences over a 12-month period to contextualize organizational level particularities that she argues ground the episodes of talk that occurred over this extended period of time. The larger story is one of "go for growth" by the six strategists. Two organizational weaknesses, as constructed by S1, are the backdrop for the four strips of interaction that she presents: the expertise gap in information systems and the inability of managers to think strategically.

She selects episodes of interaction that are brief but important turning points in terms of the two weaknesses. The four episodes also effectively illustrate what she discovers as six features of relational–rhetorical skills critical to S1's successful talk-in-interaction: emotion is a tactic of expression; the past is spoken of in routine talk of today and the future; a knowledge of when and how to let go, ignore, or question is critical; knowledge needs to be spoken; mitigation and observation of established norms of human interaction are important; and metaphors are used. She includes a simplified set of transcription symbols

(e.g., [signals interruption, (.) signals a brief pause, *italics* signal emphasis). Overall, Samra-Fredericks's approach to understanding how strategy happens in real time combined the benefits of conversation analysis and that of ethnography to link micro (e.g., human interaction) and macro (e.g., industry conditions) organizational perspectives.

Critical Summary

Early criticisms of conversation analysis stemmed from its focus on micro sequences; the discovered structures of patterns of interactions were often isolated to single utterances. The discovered orderliness of the micro disregarded how it informed macrostructures and processes. A study of talk-in-interaction, however, can uncover how individuals, through interaction, produce and reproduce social structures. Conversation analysis's attention to detail demonstrates how organization work is accomplished and how individuals are producing the character of the organization in an ongoing matter.

Gina Grandy

See also Ethnomethodology; Generalizability; Intrinsic Case Study; Phenomenology

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CREDIBILITY

Credibility refers to the extent to which a research account is believable and appropriate, with particular reference to the level of agreement between participants and the researcher. It is one of the important considerations in assessing the extent to which a case study or any other type of research study is trustworthy. Credibility should be considered alongside other criteria for trustworthiness, including objectivity, reliability, validity, plausibility, generalizability, authenticity, and other related notions.

Conceptual Overview and Discussion

Credibility as a Form of Trustworthiness

There is considerable divergence in researchers' approaches to defining and assessing trustworthiness and in the strategies they advocate to increase the trustworthiness of their research. The labels internal validity, external validity, reliability, and objectivity have established themselves as the standards for trustworthiness in quantitative research. For qualitative research, these terms may not be perceived as relevant or applicable, leading qualitative researchers to (a) redefine the terms in the context of qualitative research; (b) adopt alternative terms that more closely fit qualitative research, usually describing their new terms in relation to the standard terms; or (c) reconceptualize notions of trustworthiness by building arguments about the ways that their reconceptualized approach is more faithful to the underlying philosophy and commitments of their particular form of qualitative research than the standard quantitative concepts and terminology.

The notion of credibility is most often associated with the framework presented by Yvonna Lincoln and Egon Guba. They outlined four key questions that relate to the trustworthiness of research findings and provided divergent sets of terminology for quantitative and qualitative research approaches:

- 1. Are the findings "true" for the participants and the context? This question refers to "truth value," which is an issue of internal validity or credibility, that is, the degree to which the researcher appropriately identifies or measures the presence or absence of central constructs or relationships among those constructs.
- 2. Are the findings applicable in other contexts or with other people? Judgments about applicability are typically discussed under the label external validity, which considers whether the findings can be generalized or transferred to another setting.
- 3. Would the findings be similar if the research were repeated with the same or similar participants in the same or similar context? This is a question of consistency, which may be considered under the labels reliability or dependability.
- 4. How much have the researcher's biases and perspectives influenced the findings? This idea of neutrality may be discussed as the elusive concept of objectivity or as the less stringent term, confirmability.

As indicated, the first of these four criteria involves credibility or internal validity. This criterion must be considered in relation to the other notions in order to assess the overall trustworthiness of the research data and the resulting reports.

Credibility, Internal Validity, and Reality

Credibility and internal validity are two ways of thinking about the extent to which a research account is truthful. Researchers who perceive the existence of an external reality that can be measured or approximated through research data tend to commit themselves to goals of demonstrating that their measurements truly reflect research constructs as they exist in the external world. These researchers tend to adopt the language of internal validity to discuss the resulting truthfulness of their research accounts. For these researchers, there are various theoretical approaches, some with accompanying statistical measures, to assess the match between their research data and some external reality.

In contrast, researchers who perceive reality as a social construction and hence acknowledge the existence of multiple realities, tend to be concerned with articulating whose reality is captured in the research and to whom the research is believable and appropriate. These researchers may adopt the language of credibility with an understanding that credibility must be assessed from some perspective rather than as an inherent quality of the research. John Creswell and Dana Miller, for example, consider credibility from the perspectives of researchers, research participants, and research consumers (i.e., readers and reviewers of the research).

Strategies to Enhance Credibility

Researchers have identified several important strategies that can help to enhance credibility during data collection, analysis, and reporting. To establish credibility, researchers strive for data saturation. They collect and analyze data on an ongoing basis, continually comparing to see if new ideas, constructs, and themes arise or if the same notions reemerge. Case study research reports include thick description that brings the case to life for readers. Triangulation across multiple sources of data, including possible contradictory sources of data, can reveal convergences, divergences, and discontinuities that are essential to describing the case. Maximum variety sampling can be particularly helpful in uncovering negative evidence.

Research that involves prolonged and persistent field work provides sufficient time and depth of data for researchers to identify key aspects of the case and address potential distortions that might otherwise be introduced in the case. Extended time in the field is also essential to building trust with research participants, thereby increasing the likelihood that they will be open and honest with the researcher, and that they will accept the researcher may become a participant in the community and thus be able to provide an insider's view of the case.

Researchers may work in consultation with other researchers, providing opportunities for comparisons that may uncover convergences, divergences, and discontinuities in the data interpretations. Likewise, some researchers invite participants to collaborate as coresearchers, thereby providing an insider perspective for the research that may be seen as more credible to other participants and readers.

Researchers can adopt a reflexive approach to document how their own biases and perspectives influence data collection and interpretation. Qualitative researchers emphasize the need for full disclosure about how and why they have interpreted data in particular ways. Some researchers focus upon low-inference descriptors, verbatim statements, and nonjudgmental descriptions of the participants and the settings to provide a level of verisimilitude that is convincing to research participants and readers.

Member checking is often seen as central to establishing the credibility of a research account. Consultations with research participants or other members of the community throughout data collection, data analysis, and report writing provide opportunities to assess the level of agreement regarding the accuracy of the data and the researcher's interpretations and accounts drawn from those data.

Credibility is enhanced through opportunities for peers, external consultants, or auditors to review and verify the evidence. The use of mechanical recording devices allows researchers and their assessors to review data resources after leaving the field. Verbatim statements from participants in field notes, in audio or video recordings, and in research reports can be readily connected, especially when the report has specific citations to the database where the evidence can be found. Researchers can also document the steps followed during data analysis and trace the development of final categories or propositions for their research reports. Robert Yin describes the importance of providing a "chain of evidence" for external assessors to link evidence from research records to case reports. Lincoln and Guba discuss this same point using the term audit trail for the evidence used in formal credibility assessments by external reviewers.

Application

Mary Rodwell and Katharine Byers provide a detailed credibility assessment for two case studies of decisions regarding child neglect. Rodwell collected extensive data from parents, school personnel, social workers, police officers, attorneys, and judges over a 6-month period. She recorded her research data in field notes and various forms of journals. She established an audit trail through

activity logs and methodological logs that she maintained throughout the research process. She documented the various decision rules, data units, categories, and coding systems that she developed. Five participants provided member checks attesting to the credibility of Rodwell's research from their perspectives.

Rodwell then contracted Byers to conduct an external audit of the trustworthiness and authenticity of the two case studies. Byers reviewed the audit trail provided by the journals, logs, and research documents and prepared a formal assessment in the form of an audit report. As an external auditor, Byers provided her judgment about the credibility of the research, not a final statement about the quality of the research. Positive judgments about the credibility of the research from the perspectives of the five participants who engaged in the member checks and the external auditor (Byers) increase the likelihood that subsequent readers of the research will likewise judge the work as credible.

Critical Summary

It is important to consider the credibility or believability of any research study. There is a range of strategies that can enhance credibility for case study research. The specific strategies adopted in any particular case study to enhance credibility depend upon the goals of the researcher, the guiding frameworks for the research, and the nature of the case itself. Credibility is a relative judgment taken from a particular perspective, rather than a definitive claim about the case study as a whole.

Michelle K. McGinn

See also Authenticity; Generalizability; Objectivity; Plausibility; Reliability; Thick Description; Triangulation; Validity

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CRITICAL DISCOURSE ANALYSIS

Critical discourse analysis (CDA) is a theoretical and methodological framework that allows one to examine the constitutive role that discourses play in contemporary society. Its origins lie in applied linguistics, and it has been developed by scholars such as Norman Fairclough, Teun van Dijk, Theo van Leeuwen, and Ruth Wodak. In recent years, it has been applied in various ways across social and human sciences. Foucauldian and other poststructuralist approaches are at times also considered critical discursive analyses, although their epistemological assumptions are somewhat different. While many underscore the differences, there is a linkage between the approaches as, for example, Fairclough's work draws on Michel Foucault's ideas.

Against this background, it is not surprising that one can distinguish several different approaches under the broad umbrella of CDA. For example, Fairclough and Wodak distinguish between French discourse analysis, critical linguistics, social semiotics, sociocultural change and change in discourse, sociocognitive studies, the discourse–historical method, reading analysis, and the Duisburg School as important traditions in CDA. Since the label of CDA is sometimes associated exclusively with Norman Fairclough and colleagues' work, some scholars have suggested that we should move toward using a broader notion of critical discourse studies (CDS) instead of CDA.

Theoretical and Methodological Basis

What are the general characteristics of CDA? Essential are at least the following four features. First, CDA focuses on the role played by language in the construction of power relationships and reproduction of domination in social and societal life. Of specific concern are usually social problems

and inequalities in the contemporary world. In a sense, CDA attempts to make visible taken-forgranted assumptions that easily pass unnoticed in more traditional analyses. Second, CDA involves an in-built critical stance. Thus, a researcher is not a "neutral observer," but his or her role is to acknowledge a particular kind of (critical) perspective.

Third, contextuality is a crucial issue in CDA. Consequently, the ability to place specific texts in their contexts is important in CDA. On the one hand, this means taking the social, cultural, and institutional settings seriously. Norman Fairclough, for example, argues that discourses should be analyzed at three levels simultaneously: textual (microlevel textual elements), discursive practices (the production and interpretation of texts), and social practice (the situational and institutional context). On the other hand, the historical dimension is important in CDA. In particular, Ruth Wodak argues for a historico-discursive methodology where specific texts and discourses are placed in their historical context. This kind of analysis should thus link textual representations with social and material practices, which is naturally a demanding task for any scholar. Furthermore, such analysis thus often becomes interdisciplinary. In fact, some CDA scholars argue that the essence of CDA is to combine methods of linguistic analysis with social theories and subject-specific understanding.

Fourth, intertextuality—linkages between different texts—is a key issue in CDA. In brief, one cannot fully understand specific texts or discursive acts without linking them with other texts and discursive acts. Thus, as in other contemporary discursive methodologies, discourses are seen to be constituted by complex webs of texts, and even if CDA often focuses on close analysis of individual texts, these texts should always be placed in their intertextual context. This issue of intertextuality is also related to the broader question of interdiscursivity, that is, how specific discourse and genres are interlinked and constitute particular "orders-ofdiscourse." Such orders-of-discourse are then seen as essential parts of power relations and systems of domination in contemporary society.

CDA is open to various kinds of methods. This kind of research demands the ability to make sense of, on the one hand, linkages between specific textual characteristics and particular discourses, and, on the other, linkages between discourses and the

relevant sociocultural practices and historical developments. This means that research of this type usually tends to favor in-depth scrutiny and reflection on specific texts rather than more formal methods of analysis such as content analysis. This is not to say that content analysis or other similar methods are not valuable tools in CDA, but that on their own they are most often insufficient for "digging deep" into the relationships of text, discourse, and sociocultural practice, and to understand the constitutive role that discourses play in society.

What are suitable empirical materials for CDA? In principle, any kind of textual material (documents, speeches, conversations, media texts, etc.) is useful for critical discursive inquiry. In addition, it often makes sense to include visual representations in the analysis, for example, in the form of pictures, symbols, and so forth. Different modes of semiosis may turn out to be important in the critical analysis of discourses in particular contexts.

Application

CDA can be used in various fields of social science. In fact, Norman Fairclough has emphasized that CDA has been developed to serve interdisciplinary research efforts. Organization and management scholars have been active in adopting these ideas and methods, and applying them in different ways for understanding different phenomena in and around organizations. For example, Nelson Phillips and Cynthia Hardy provide examples of empirical studies where critical discourse analysis has been used to better understand how concepts, objects, and subject positions are constructed in organizations. While there is no specific right way to use CDA in case studies, the formulation of a focused theoretical framework, selection of texts, and the choice of methods of analysis are crucial strategic issues therein.

One illustrative example of CDA is provided by Bob Hodge and Gabriela Coronado, who examined the role of strategy documents from a critical perspective. They focused on the Mexican government's Plan–Puebla–Panama, which is a historically significant policy document dealing with the southeast region of the country. They analyzed the various discursive and ideological elements of this document, and illustrated how discourse on economic reform involved a "complex" of global

capitalist and nationalist discourses and ideologies that was used to promote the opening up of Mexican markets to MNCs (multinational corporations/companies) based outside of Mexico. Their analysis also showed that the form and vocabulary of the document reproduced corporate rhetoric and thus had a fundamental impact on the discursive and ideological struggles in the Mexican society.

Another example of recent applications of CDA is provided by Eero Vaara and Janne Tienari, who analyzed the discursive legitimation of a shutdown decision by a MNC in Finland. Their theoretical framework was based on Theo van Leeuwen's and Ruth Wodak's work on discursive legitimation strategies. In their analysis, they focused on a "typical" media text dealing with the decision to shut down an industrial unit that had in fact been profitable. Through a close reading of the relatively short text, Vaara and Tienari distinguished and elaborated on discursive strategies such as authorization, rationalization, moralization, and mythopoesis that sought to render the shutdown decision inevitable in the context of globalization. They concluded that such microlevel strategies are concrete means through which controversial actions are legitimated in contemporary society.

The studies by Hodge and Coronado and by Vaara and Tienari demonstrate some basic tenets of CDA. Both are concerned with controversial issues that contain potential social problems and inequalities. In both studies, the authors sought to bring to the fore, and critically scrutinize, takenfor-granted assumptions that easily pass unnoticed. Both studies took care in placing the text(s) studied in context, reflecting on discursive and sociocultural practices around the focal text(s). This included reflections on intertextuality: linking the focal text(s) with other texts and discursive acts.

Crictial Summary

Critical discourse analysis has become increasingly popular across social sciences and humanities because it offers an opportunity to better understand contemporary social problems by targeted linguistic analysis. However, applications of CDA have been frequently criticized for a lack of rigor and detail in the actual linguistic analyses. Moreover, students of CDA have at times been accused of self-serving selections of texts and distorted interpretations.

CDA forces the analyst to take a stand on issues, more so than in conventional analyses. This should not be misinterpreted as a license to produce any kind of critical comment based on one's convictions or general observations. On the contrary, precisely because the critical discourse analyst is usually dealing with complex issues that allow one to express multiple and contradictory points of view, it is necessary to make sure that one's own interpretations are backed up by textual evidence and logical chains of argumentation. Carried out in this way, CDA is useful for case study research in its own right, but it can also be used to complement other research efforts. For example, studying the social construction of specific phenomena may involve combinations of ethnographic methods and critical discourse analysis, as long as the researcher does not attempt to do too much and is aware of the underlying assumptions behind the specific methodologies in question.

Eero Vaara and Janne Tienari

See also Critical Realism; Epistemology; Intertextuality; Poststructuralism; Textual Analysis; Thematic Analysis

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CRITICAL INCIDENT CASE STUDY

The critical incident method (sometimes referred to as the critical incident technique) is a methodology used primarily for exploratory research. It is a flexible qualitative or mixed methods technique used for the study of factors, variables, or behaviors that are *critical* to the success or failure of an activity or event and associated outcomes.

Conceptual Overview and Discussion

While case studies of significant incidents or events have a long history of interest to scholars, the critical incident method as a method was first formalized by Colonel John C. Flanagan during World War II. His analytical efforts were focused on military persons and their work behaviors in order to determine which patterns of behaviors carried out in the conduct of a task were effective or noneffective; that is, those behaviors that were related to, and that were critical for, the success or failure of a task. In his first formulation, the critical incident method was described as a set of principles that could be used to study human behavior and its relation to a particular activity such as pilots engaged in the activities necessary to the flying of an airplane, or to a more specific event such as success or failure at properly and safely landing an aircraft. However, over the past five decades the critical incident method or critical incident technique has spread beyond its original behavioralist beginnings; and the method has since been both widely adopted and adapted across many disciplines for use in case-based research.

When used as the primary method for case research, the critical incident method normally has a particular event-based focus. That is, the method is used to investigate or explore particular types of events or incidents—those that researchers perceive to be *critical* in some way. By definition, these critical events are significant, unique, or

unusual in some aspect of interest to the researcher. For example, they may be cases of failure or near failure, or of disaster, calamity, or catastrophe. Alternatively, they could be focused on unusual or significant cases of successful or serendipitous events or outcomes.

Critical incident case studies have the goal of exploring answers to questions such as who was involved in the event, what did these individuals do (or not do!), and how did their actions or inactions contribute to the incident or outcome? While originally developed to study, and consequently propositionally bounded by, the behaviors of persons and their relation to events or outcomes, the scope of critical incident case research has also expanded from its original behaviorally constrained domain. This technique and methodological approach is now being used to study not only persons' behavior(s), but also their cognitions, their emotional state(s), or almost any other individual characteristic of interest. In addition, the approach has moved beyond the individual; the range of antecedents, facilitating factors, or contributing variables to be investigated now include factors at the individual, group, or organizational levels and may also incorporate both internal and external variables of interest.

So useful is this approach to case study that it now is used in industrial and organizational psychology, education, medicine, engineering, human factors design, organizational analysis, and many other fields. Yet despite the enlargement of the domains in which the critical incident method has been used, the primary goal of using this approach to case study generally remains the same as its original purpose: the determination of the causal antecedents of an event and those critical actions or inactions taken by actors or agents that contributed to the event's or outcome's occurrence.

Application

Unless a specific individual's behavior is the focus of research, given the complexity of the study of modern phenomenon in our world today, it is unlikely that the actions of one and only one individual will be able to provide a sufficiently comprehensive and satisfactory explanation to any research question of interest beyond this level. As a consequence, critical incident methodology

beyond the individual level requires an exacting approach to collecting, organizing, and relating evidence. Almost all events or critical incidents (less those personally witnessed by participant observers) will be post hoc analyses. Therefore, a combination of evidentiary material will normally be used within the case study. For example, interviews, documentation (written, audio, video, etc.), and possibly physical artifacts may all serve as forms of case evidence. Regardless of the form, case evidence will normally need to be gathered from multiple sources and integrated.

This state is highlighted by the work of Charles Perrow, who shows how individual behaviors in conjunction with tightly coupled, human designed systems almost inevitably lead to catastrophic or near catastrophic outcomes. In order to account for, or explain, the type of accidents that may happen in our complex, largely systems-based world, he uses a variety of data from multiple sources, including interviews, technical systems reports, diagnostics, and performance statistics.

Similarly, Karl Weick has also used this approach in his research. In two separate studies, one the death of 13 firefighters in his now-famous Mann Gulch disaster case, and in a second, the Tenerife aircraft disaster, where two large aircraft collided resulting in the deaths of nearly 600 persons. For the Mann Gulch case, Weick used what was, in essence, a critical incident approach to study how the behaviors of individuals and groups are influenced by their individual and group-level sensemaking activities and how the effects of these processes can lead to highly negative outcomes. Weick shows how a breakdown in individual role and group sensemaking was a direct causal factor in their deaths. In the Tenerife case, like Perrow's work on technological systems, Weick shows how a combination of individual behaviors, breakdowns in sensemaking, and technological systems led to the collision and subsequent deaths.

While theoretical propositions, relationships, or processes may be postulated as a result of the analysis of case material using this approach, the case researcher must be careful not to offer ecological generalizability. As a function of the nature of the object(s) of study, a critical event or incident, the very specific methodological approach in combination with the unique nature of factors antecedent to these events or incidents means that

critical incident method based cases should be considered only analytically generalizable. That is, the results of the study may provide an analytical or propositional framework within which to analyze other, perhaps similar, events or incidents.

Terrance G. Weatherbee

See also Causal Case Study: Explanatory Theories; Event-Driven Research; Explanation Building; Explanatory Case Study; Extreme Cases; Mixed Methods in Case Study Research

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CRITICAL PEDAGOGY AND DIGITAL TECHNOLOGY

Critical pedagogy seeks to create a critical consciousness through a power-minimal discursive educational practice. Digital technology can further empower the learner by allowing the learner to develop the case study discourse directly.

Conceptual Overview and Discussion

The purpose of this entry is not so much to give an account of critical theory and pedagogy in general, or more precisely, critical pedagogy and the philosophy of technology. Rather, the question lies in how digital technology can advance the agenda of critical pedagogy through its use in case study application. A case is something that is *done*, not simply something prepared and sold. This Socratic

method of teaching uses a situation, specific or general, to provoke critical thinking, or more radically to provoke a reaction against hegemonic practices through a power-minimal discursive situation in order to create counter-hegemonic discursive practices and hopefully a critical consciousness. The pedagogical converse often is presented as the one-way "Sage on the Stage" lecture method, what Freire called the "banking" model of teaching. Before attending to the discussion of how digital technology can revolutionize the case study method consistent with the perspective of critical pedagogical thought, this entry isolates the key constructs and quickly summarizes the critical theorists who brought these ideas into being.

Hegemony and Power

Antonio Gramsci spent 11 years in prison under Mussolini, during which time he wrote 32 notebooks in all and in the process gave us a tangible expression of a Marxian notion of ideological domination called "hegemony." A hegemonic practice dominates the cultural landscape and tends to legitimize oppression through the social relations of production and the concomitant institutions and ideologies that support them. The dominant system of belief, this mode of understanding, within the popular frame of mind contributes as much to oppression as any physical expression of power, contra Mao Zedong who said that power comes solely from the point of a gun. Hegemony allows for ruling by "consent," using ideological outlets; people move willingly as it seems to be in their best interest to do so. This notion of false consciousness, however, owes more to Georg Lukcas than Gramsci. Nonetheless, Gramsci's development of the concept of ideology begins the critique of hegemonic popular culture by advocating counter-hegemonic practices through ideological institutions such as educational practices, work practices, and more.

Gramsci also gives us the notion of the "organic intellectual." Critique is not the property of academicians alone; rather, a critique of hegemonic practices, and creating the possibility for transformation, can happen in the classroom, and indeed any institution. Gramsci's view of the organic intellectual is important when the teacher understands that he or she is not the sole bearer of

intellectual critique, particularly those working with adult learners who are actively engaged and leading in these practices. This understanding allows for the dispersal of power in the classroom and maximum engagement. Gramsci understood that the instructor plays a crucial role in getting organic intellectuals to critique dominant hegemonic practices inside the classroom and out. The instructor helps the learner to demystify hegemonic social practices by creating counter-hegemonic practices.

Michel Foucault explored the problem of power and social control through a set of critical studies on social institutions. Foucault wrote about the formation of knowledge, power, and human discourse in the context of specific dominant institutions, for example, asylums, prisons and punishment, medicine, and, late in his life, on the social construction of sexuality.

Foucault gives us the concept of knowledge/power; all knowledge is power; power is dispersed; social institutions build around them a language of practice meant to legitimate their domination. This Orwellian disindividualization automates and distributes power through institutions. However, the individual is capable of action even if ways of "governance" ontologically create an epoch, a worldview, that constrains language, meaning, and choice and as such perpetuates domination.

Further, Foucault speaks of normalization, the totalization, and the process by which society creates the individual, for better or worse, opposing monarchical top-down notions of power. Like Gramsci, Foucault understood that the ideological side of power is diffuse, operating and emerging up from the margins of shifting micromechanisms. And while the normalization process cannot, and sometimes should not, be avoided, it can be critically understood and when needed challenged, even transgressed, looking for the marginal nodes of resistance. It is to the margins of power that critical pedagogy looks.

Critical Pedagogy

The goal of any critical pedagogy is to create a critical consciousness, a desire to help the learner see and understand oppressive social practices, create counter-hegemonic practices, and work toward social change. The attempt to allow learners the opportunity to identify and challenge hegemonic

social practices comes from a place of respect, where the learner as an organic intellectual contributes to the discussion through a power-minimal situation. Fundamental to the notion of critical pedagogy is that the classroom is never politically neutral. Learners and instructors bring with them the ways in which they have been normalized and the understandings they pursued as organic intellectuals. Furthermore, the instructor will always have some level of power, be it evaluative, constitutional, or simply the fact that there is an economic exchange going on. Professors of critical pedagogy must get paid for their services and the student pays them, however distasteful the customer concept may be. So the question becomes not to be powerneutral, but how to become power-minimal.

Critical pedagogy as we knew it in the last half of the 20th century, and as it exists today, starts with the work of Paulo Freire. Freire introduced the notion of the classroom, not dissimilar from Gramsci, as a contested space where the politicalneutrality chimera, the tabula rasa, is replaced by a dialogic of race, gender, sexuality, religion, disability, and more that must be brought out into the light and discussed. Freire sought to use a powerminimal educational space to create the critical consciousness of the learner such that he or she is prepared to take part in the collective need to challenge hegemony and work toward social justice. Freire and his students pursued an aggressive drive for emancipatory change, a critical analysis of language games in a globalized postcolonial context. But more fundamentally, Freire understood that learners were not empty accounts in which to deposit knowledge, the "banking" concept of education. Learners need to be challenged to think critically, and helped onto the path of social transformation, and the consensus sought in the dialogical classroom will create just that.

One of the most active of Freire's students, Henry Giroux, influenced by the more postmodern direction of his generation, objected to Freire's notion that a critical consciousness will naturally emerge from dialogical critical thinking in the classroom moving toward consensus. Seeking consensus is neither possible nor necessary, Giroux maintained. A didactic classroom has the chance of producing critical consciousness; but the search for consensus will not make it so of necessity. Indeed, the lack of consensus deriving from even

the most minimal of power situations is actually a good thing. Fundamentally, Giroux's studies how a school, as the site of battles for popular culture, affects today's youth.

In time, Giroux began working crossdisciplinarily in media studies and literary studies, crossing academic borders while calling for a "border politics" that pushes learners to think critically about the possibility of radical democracy though transgressing into each other's border regions. Giroux fundamentally widens the notion of "schooling" beyond public schools, to include all popular culture, as young people are educated as much by television and the media as by what goes on in the classroom. Understanding youth culture, the intersection of race, gender, and more, teachers need to reinvigorate democratic culture as one part of the cultural space that makes possible the maximum amount of democratic participation for the young, who are the main focus for Giroux.

Of course there are many other critical pedagogists to discuss. Peter McLaren, motivated by an interesting combination of strict Marxist-Leninism and a form of Marxist humanism, pushes issues of globalization and mass media, continuing the notions that the school is only one site of political discourse and that teaching must be informed by an understanding of the larger popular culture in which learners learn to be who they are. Engaging diverse language games, decolonizing, and pushing interchange with indigenous peoples, the critical pedagogical movement goes forward through diversity and dialogue. Practitioners do not give up one ideology to bank in another, as the dialogical process in a power-minimal discursive space is used to give voice to the diverse perspectives available in the classroom. And while it would be enjoyable to diverge into popular culture, particularly with Douglas Kellner, taking his perspective on critical theory and media studies into education, this would draw us off point. As such, we now have enough of an idea of critical theory and critical pedagogy to see how digital technology is likely the most significant opportunity for aggressively pursuing the agenda of critical pedagogy.

Application

Generally speaking, case study analysis and critical discussions more and more replace the

one-way lecture model as a means of empowering students and generating critical thinking. However, case studies done in print form have two distinct disadvantages. First, in the "real world," no supervisor ever says that we have a problem and here is all the information you need to solve it. Finding what one needs, research perhaps, or what is often called "information literacy," is lost in this preset case presentation. Second, and more to the point, in the printed case, the case designer dictates the terms of the discussion by providing most if not all of the information necessary to do the case. By determining the universe of discourse in a preset case, the instructor and case designer have a one-way power relationship with the student. Using digital technology to create and implement case studies addresses both of these concerns. Students research the case digitally while taking the case in the direction that means the most to them as organic intellectuals worthy of respect in their own right, such that developing a critical consciousness and creating counter-hegemonic discursive practices emerges naturally.

In print it is difficult to show the full potential of the critical digital case-based approach. A brief sketch of an example here, coming come from an undergraduate course in business ethics, makes the point. Specifically, ask most students, indeed, ask most people you know, and they will say that affirmative action is a thing of the past. With the election of President Obama, racism has been defeated, the glass ceiling broken by Hillary Clinton or Sarah Palin, and we simply do not need any kind of preferential treatment programs, as racism and sexism and other forms of discrimination are things of the past. Declaring victory in the war on hate and oppression, however, may be premature. In order to move toward a critical consciousness on this issue, one has to spin the case in a way that makes learners reflect on their basic assumptions about race, gender, and more, in the context of affirmative action.

This passage is taken from the Web site of the Disabled Veterans Affirmative Action Program (DVAAP) (http://www.opm.gov/employ/veterans/DVAAP.asp):

Most departments and agencies in the Federal government are required to have an affirmative

action program for the recruitment, employment, and advancement of disabled veterans. The law requires agencies to develop annual Disabled Veterans Affirmative Action Program (DVAAP) Plans.

The question that can be put to students:

Should disabled veterans get preferential treatment over better qualified candidates who are not disabled veterans? Make sure to contrast DVAAP to programs that involve affirmative action for women or people of color.

At this point it becomes the job of the learner to decide the direction of the case. More information is available online than one can imagine, and it becomes the instructor's job to tutor students in their research. From cyber libraries like Proquest, EBSCO, JSTOR, and more, learners can access academic journals of all types, for example, the *Journal of Business Ethics*; magazines from *Forbes* to *Mother Jones* are available, along with newspapers like the *Wall Street Journal*; in other words, anything that is not available for free online can be found in cyber libraries.

Beyond these libraries, students can be given a listing of the top *meta-sites* in the field in order to jump start their research. One of the best metasites on the subject is the Affirmative Action and Diversity Project, which represents a variety of viewpoints, eschewing simple pro and con, giving opportunities to different voices in the debate on affirmative action:

http://aad.english.ucsb.edu

Other meta-sites include

The American Association for Affirmative Action, www.affirmativeaction.org

HR Guide to the Internet, www.hr-guide.com, www .findlaw.com

Such sites will get learners to the latest news, state actions, and current legal cases; links to institutional policy; programs for different businesses institutions; the Bureau of Labor Statistics; Department of Labor sites; the Equal Employment

Opportunity Commission; along with major affirmative action legal decisions, political policies, executive orders, and more.

These meta-sites alone link to more information on affirmative action than preset case studies and textbooks, and this discussion does not include what happens when the learner simply goes to Google or any other search engine. With the world of information available digitally at their fingertips, learners then have the chance to decide which direction to take the argument. In this case, some learners will focus on the "merit" argument; others focus on "compensatory justice" arguments, still others on issues of "reverse discrimination," and so on. Thus, a learner can take the direction that he or she finds most intriguing. By being allowed to direct the development of the case, the learner comes to see the complexity of the argument and begins to rethink his or her position and begins to create counter-hegemonic discursive practices that move toward a critical consciousness on issues of race, gender, disability, and more.

Critical Summary

The catch here of course lies in what is known as the "digital divide." The haves and have nots, poor or rich, urban or rural, developed versus developing country; economic advantage affords differential access to digital technology. And while Doug Kellner cautions against seeing the digital divide as a marketing gimmick and a way for techno-corporate interests to push their products, there is wide agreement that, so long as we stay with an instructor-based model and do not move to a digitized correspondence program as Andrew Feenberg explains, we can work toward building a critical consciousness, a Deweyian commitment to democratic values, and use digital technology to allow the learner to dictate the direction of the case study analysis. Empowering the learner to take the course of his or her greatest interest creates a power shift in the case-based classroom that helps the learner to discover and resist hegemonic practices by creating counterhegemonic practices and moving, in time, toward a critical consciousness.

Steven J. Gold

See also Authenticity; Authenticity and Bad Faith; Base and Superstructure; Case Study Research in Business Ethics; Constructivism; Critical Discourse Analysis; Critical Theory; Deconstruction; Discourse Ethics; Docile Bodies; Genealogy; Hermeneutics; Historical Materialism; Knowledge Production; Logocentrism; One-Dimensional Culture; Postmodernism; Poststructuralism; Poststructuralist Feminism; Power; Power/Knowledge; Praxis; Radical Feminism; Socialist Feminism

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CRITICAL REALISM

Critical realism provides a distinctive account of the bases of the natural and social sciences, challenging versions of empiricism and positivism but also offering an alternative to social constructionist and postmodernist accounts of the social. Thus it represents a distinctive approach to the ontological and epistemological underpinnings of social research, rejecting the polarized terms of much debate between these positions. In particular, it combines an ontological insistence on the existence of objective natural and social realities with recognition of the socially constructed and fallible character of scientific knowledge.

Much of the advocacy of critical realism has remained at a high level of abstraction. Philosophers and social theorists have provided generic statements about this approach to analysis and explanation in the social sciences, but have rarely considered the implications for specific styles of social research. Nevertheless, growing numbers of researchers have found the programmatic stance of critical realism attractive because it offers a warrant for existing research approaches that do not conform to either positivist or social constructionist protocols.

Some recent discussions have addressed the implications of critical realism for different approaches to social research. Some commentators have identified specific affinities between critical realism and case study research, but others suggest case studies represent only one among a range of appropriate research designs. There is nevertheless widespread agreement that critical realism does

not simply underwrite existing research designs and forms of analysis, but encourages their reappraisal and refinement in the light of its precepts.

Conceptual Overview and Discussion

What Is Critical Realism?

Even among critical realists there are important differences of position. Some are more optimistic and some more pessimistic about the scope for an explanatory social science. Writers also disagree about the character and implications of the critique implied by the term *critical realism*. But it is widely recognized that the work of Roy Bhaskar has been foundational in establishing and developing the implications of this distinctive approach to the philosophy of science.

His early work concentrated on challenging empiricist and positivist accounts of the procedures and discoveries of natural science, though by extension this also challenged such approaches within social science. Key arguments focused on the theory-laden (not theory-determined) character of observation and the inappropriateness of constant conjunction as a criterion for causality. These arguments suggested that the relationship between natural reality and scientific knowledge involved a stratified ontology marked by distinctions between the real, the actual, and the empirical.

While the "real" involves the underlying causal properties and powers of nature, the "actual" involves the particular ways in which these powers are expressed as they are triggered by particular conditions or as causal mechanisms interact. Thus causal powers may not be triggered, so "exist unexercised," or such powers may be disrupted, thus "exercised unactualized" (or in modified form). Since the outcomes of causal mechanisms may not be registered by observers (i.e., as the "empirical"), they may also be "actualized unperceived." These arguments frame a distinctive account of scientific experiments as efforts to isolate the operation of particular "causal mechanisms" by controlling the contexts within which they operate. This is coupled with a sharp distinction between the system closure that may be achieved by experimentation and the open systems within which natural mechanisms typically operate.

This represents a distinctive philosophical underpinning for a nonempiricist and nonpositivist account of natural science, and potentially a parallel account of social science. For critical realists, however, a unified view of science is tempered by attention to the particular properties of the realms of reality addressed by specific sciences. Two properties of the social are of particular importance. First, all human actors operate with accounts of the social world they inhabit, introducing a necessarily reflexive character to social science. Second, human capacities for reflexive innovation mean that experimentation as system closure is rarely possible, making the isolation of causal mechanisms more problematical in the social realm. This second feature, especially, leads to debate about the scope and limits of social science.

Critical realists are nevertheless united in two key features of their approach to social science, both arising from their nonempiricist and stratified conception of social reality. First, hermeneutic understanding of the meanings humans attribute to their activities is an essential but not sufficient feature of social science. Second, social structures are characterized by real powers and effects, though these structures are often unobservable. One influential development of these arguments is Margaret Archer's insistence on the duality of structure and agency. Structures of social relations are not merely epiphenomena of social interaction, but have distinctive emergent and enduring properties that will constrain or enable different lines of action, although these properties may then be modified by ensuing individual or collective action.

Similarly, cultural discourses have their own emergent properties, but these must be assessed in terms of their interplay with structures of social relations and lines of reflexive action, rather than becoming the sole focus of analysis. Furthermore, such assessments of the interplay of structures, cultures, and their agential mediation must have ontological depth. They must address the ways in which agency is constrained and enabled by existing structures, which necessarily involves attention to temporality, to the role of precursor conditions and sequences of development.

This involves a distinctive analysis of actors' accounts of their experiences and orientations, as the location of such accounts within a wider complex of causal mechanisms provides the basis for

assessing both their motivational efficacy and their cognitive adequacy. This is one basis for critique within critical realism. Another is the assessment of existing structures in terms of how they constrain or enable the fulfillment of human entitlements or aspirations. Such arguments imply a complex relationship between what is and what ought to be, rather than their stark separation. This often underpins an orientation to possibilities for social transformation, though those critical realists most cautious about the analysis of complex open social systems may be hesitant about the critical and transformative capacity of social science.

Critical Realism and Social Research

These general ontological claims about the character of the social furnish grounds for rejecting positivist, social constructionist, and postmodernist rationales for social research. But critical realists make a strong distinction between such transcendental statements about key ontological features of social reality and the necessarily fallible character of particular epistemologically grounded knowledge claims about specific features of the social world, including particular causal mechanisms and their combined effects. An adequate social science must be premised upon a search for social, cultural, and agential entities with specific causal powers, coupled with recognition that such powers will operate in a mediated and cumulatively interactive fashion as they constitute open and evolving configurations. The elucidation of such entities, powers, and interactions is inevitably provisional, but cannot be grounded in empiricist induction or covering law deduction (i.e., where an event is explained through deduction from a more general law and initial conditions). Instead it must be developed through a theoretically guided engagement with theoretically salient findings.

Ray Pawson and Nick Tilley translate this in a practical way as the analysis of relationships among mechanisms, contexts, and outcomes. This can be unpacked as a search for entities with particular causal powers (mechanisms) that operate in distinctive ways when accompanied by other entities that may trigger, mediate, or contradict these powers (treated in summary fashion as contexts) to produce distinctive effects (outcomes). When the theoretically guided engagement works from

outcomes and contexts to develop an account of possible mechanisms, critical realists characterize this as *retroduction*. When it works from posited mechanisms through contexts to explain specific outcomes, it is termed *retrodiction*. These terms seek to capture the theoretically driven but openended character of social research, a feature underlined by recognizing that social research programs involve both retroduction and retrodiction.

In thinking about this "mechanism, context, outcome" formula, the distinction between mechanisms and contexts is sometimes construed as an ontological distinction between entities with intrinsic properties and powers and surrounding but contingent circumstances. One problem, however, is that in an open system and in the absence of experimentation it is difficult to sustain the distinction in these terms. Instead, those involved in the substantive analysis and middle-range theorizing that characterize social research are likely to make this distinction on pragmatic grounds related to the specific focus of the research.

What, then, are the implications of these methodological guidelines for specific styles of research or research design? First, much quantitative and survey research is constructed and justified in terms of positivist protocols that are attacked by critical realists. Statistical regularities are often treated as qualified forms of constant conjunction and theorized in terms of covering laws, while survevs often provide little evidence about contextualization or temporal sequencing. Meanwhile, case studies are relegated to a subsidiary exploratory role, subordinated to the requirements of statistical generalization from large data sets. It should be noted, however, that some forms of quantitative research and statistical analysis do address contextualization and/or temporal sequencing, and critical realism has inspired some such efforts to model the complex, contingent, and multilevel outcomes of causal mechanisms.

Meanwhile, qualitative and ethnographic research is often strong on contextualization and temporal sequencing while repudiating a search for covering laws. Such research is usually conducted under the auspices of social constructionist or post-modern theorizing, but critical realists dispute their one-sided focus on actors' interpretations or cultural discourses and their relativist disregard for the differential adequacy of contending explanations,

which impoverishes the analytical and explanatory scope of case studies. When qualitative and ethnographic researchers are guided by critical realism, then, they endeavor to conduct that research in ways that overcome such limitations.

Critical realism therefore contests the polarized debate between positivism and constructivism as philosophies of social science and offers guidance that cross-cuts the associated quantitative/qualitative divide in research traditions. Critical realist reassessments of both quantitative and qualitative methods are compatible with an explicitly mixed methods approach to social research, but do not offer a blanket justification for eclectic mixing of quantitative and qualitative methods. Instead, they set some quite stringent criteria for assessing the adequacy of specific research designs, whatever the mix of methods involved. These emphasize explicit theorizing, identification of causal processes, appropriate contextualization, attention to temporal sequencing and interaction effects, and critical contextualization of actors' accounts.

Application

Critical realism values several standard features of case study research design: investigation of actors' discourses and negotiated meanings; concern to set specific social processes in context, both within and surrounding the case; and attention to the sequencing and dynamics of social processes over time. But it also recommends other features that have a more disputed currency: willingness to deploy mixed methods of data collection and analysis; reliance on explicit theorizing to draw out the wider implications of specific case studies; and critical engagement with the limiting as well as penetrating features of actors' accounts. Together these features explain why critical realists take case studies seriously and why case study researchers appear increasingly attracted to critical realism.

This engagement is recent but already productive. One result is a clearer specification of the components of explicit theorizing that may inform the design and interpretation of case studies. Stephen Ackroyd compares four different case study research designs and highlights the distinctive analytical focus and explanatory leverage afforded by each. Intensive, tightly focused, single case studies provide the basis for fuller understanding of the

operation of a specific causal mechanism. More extensive, holistic, single case studies offer the prospect of exploring interacting and stratified mechanisms operating in specific sequences and nested contexts to produce distinct outcomes. Intensive, probe-like, multi-case studies allow the examination of interactions between a specific mechanism and varied contexts. Finally, more extensive multi-case studies allow researchers to trace the ramifications of well-understood mechanisms as they interplay with quite varied contexts.

Thinking in these terms encourages consideration of the ways in which different case study research designs may enable distinctive mixes of retroduction and retrodiction, underpinning the discussion of wider theoretical implications. Appropriate combinations of these designs should allow a cumulative understanding of fundamental generative processes, their interactions within the case, and their interplay with surrounding contextual features. This is also compatible with the "holistic modeling" approach to cross-case comparisons (both within multi-case projects and across published cases) advocated by Paul Edwards and Jacques Belanger, which emphasizes the role of configurations, contexts, and temporal sequences against any quasi-statistical aggregation of case study findings.

Another specific focus of discussion concerns a distinct approach to interviewing research subjects, a key resource in generating case study data. Ray Pawson and Nick Tilley argue that interviews should be "theory driven," designed to explore, refine, and test the character of proposed mechanisms and contexts and the ways they link to outcomes. They suggest that this requires the interviewer to coach the informant on what is relevant through the character and sequencing of questions and the elucidation of areas of interest, highlighting the importance of connecting analytical agendas with actors' own experiences and reflexivity. Thus researchers should pursue focused discussion of specific, apparently pivotal, processes and their varied interpretation within the setting. Furthermore, they may treat interviews in an iterative manner, as a cumulative series of opportunities to trace and probe the operation of key mechanisms and processes rather than as a series of discrete data collection points.

Critical Summary

Critical realism provides a programmatic alternative to several other philosophies of social science, combining an ontology that recognizes the existence of stratified social mechanisms with distinct effects and a theoretically led, nonempiricist account of knowledge production. It therefore opposes the traditional dichotomies of positivist and constructionist epistemologies and the associated polarization of quantitative and qualitative methods. Its concern to explain social phenomena (events and experiences) in terms of the causal powers of particular social mechanisms and their complex interaction in specific contexts has important affinities with some traditions of case study research. However, the implications of this affinity for a distinctively critical realist conception of case study research remain underdeveloped and are only now being discussed.

Tony Elger

See also Constructivism; Contextualization; Deductive— Nomological Model of Explanation; Epistemology; Explanation Building; Ontology; Postpositivism; Theory, Role of

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CRITICAL SENSEMAKING

The analytic framework of critical sensemaking offers an approach to understanding how individuals make sense of their complex environments. It builds on the concept of "sensemaking" in which individuals draw on social psychological properties to help make sense of the experiences that they encounter in organizations and society. Critical sensemaking puts the sensemaking process in context by including issues of power and privilege in the process of understanding why some language, social practices, and experiences become meaningful for individuals and others do not.

This approach to analyzing meaning in organizations is compatible with a case study format in that sensemaking happens within a social context and as an ongoing process. It also occurs within a broader context of organizational power and social experience. As a result, the process of critical sensemaking may be most effectively understood as a complex process that occurs within, and is influenced by, a broader social environment. The descriptive, detailed approach of case study analysis is particularly suited to the analysis of this complex process.

Conceptual Overview and Discussion

Critical sensemaking is an approach that evolved in part from Karl Weick's sensemaking framework. He has described sensemaking as a recipe that provides both a way to interpret the environment and a guide to action. A recipe can help to make retrospective sense out of observed behavior, or in a more active sense, a recipe can direct individuals on how to take action, manage situations, and create meaning.

Sensemaking introduced seven properties that influence how individuals make sense of the world around them. The sensemaking framework tells us that individuals make sense of their experiences through a process that is (1) grounded in identity construction, (2) retrospective, (3) enactive

of sensible environments, (4) social, (5) ongoing, (6) focused on and by extracted cues, and (7) driven by plausibility rather than accuracy. However, these properties on their own do not fully explain why some experiences, language, and events become meaningful for individuals while others do not. Individuals do not make sense of their experiences in isolation from their broader environments. For example, some individuals within an organization may have more influence on meaning than others. Individuals with more power in organizations may also exert more power on the sensemaking of organizational members. Critical sensemaking provides a lens through which to analyze the power relationships reflected in these inequalities within organizations and the consequences of those power effects for individuals.

Jean Helms Mills and Albert J. Mills developed the concept of critical sensemaking by combining the ideas of sensemaking and organizational power in an analytic approach that offered a more complete picture of how individuals process their experiences. Critical sensemaking argues that the analysis of sensemaking needs to be explored through, and in relationship to, the contextual factors of structure and discourse in which individual sensemaking occurs. Although individuals are making sense of their day-to-day actions on a local level, the concept of organizational power places local meanings in a broader understanding of privilege. Critical sensemaking draws on Mills's organizational rules theory to offer an analysis of how these actions are determined. Organizational rules focus on social practices that determine the ways in which individuals organize and the manner in which "things get done" in an organization. However, the rules also set limitations on individual sensemaking and actions. From that perspective, rules provide a preexisting sensemaking tool that contributes to the plausibility of an interpretation or the likelihood of a cue to be extracted as meaningful. The incorporation of organizational rules into the critical sensemaking framework also introduces the concept of meta rules to sensemaking practices. These rules (including privatization, competition, and globalization) are broad in scope and represent points of intersection among a number of formative contexts.

Critical sensemaking also highlights the influence of organizational rules on individuals. These rules can be in the form of either formal or informal

organizational rules, and they reflect processes that impose order through organizational routines. Inasmuch as rules inform our understanding of how organizations may retain unity and cohesiveness, they also constrain the ways in which individuals may act and the possibility of appropriate interpretations of meaning. This perspective within a framework of critical sensemaking provides insight into both the power of the actors enacting rules, and the constraints under which these rules are introduced to the organizations. Although powerful actors in the organization may set the direction for the rules that will provide a sense of cohesion within the organization, they are themselves constrained by meta-rules and formative contexts that limit the availability of alternatives they may select from within a broader formative context.

Formative contexts are the institutional and social practices that shape a society's routines. They are structures that limit what can be imagined and done within that society. Critical sensemaking positions the formative context as a link between dominant social values and individual action. While no one formative context is necessary or fixed, some are privileged within society above others. Therefore, they represent a restrictive influence on organizational rules and individual enactment of meaning through the privileging of these dominant assumptions. Formative contexts, and the related organizational rules, are both productive of, and produced through, discourse.

By introducing the dimension of formative contexts, the critical sensemaking framework creates space for a discussion of how the macrolevel context in which individuals operate affects the cues they extract, the plausibility of various text and narratives, and the nature of enactment.

Application

Typically, an investigation of critical sensemaking processes would start from, or at least relate to, an important organizational event. This event might be the arrival of a new CEO, a merger, layoffs, expansion, or anything that could have disrupted the existing organizational routines. Helms Mills describes these sensemaking triggers as "organizational shocks" that create ambiguity in the organization and force individuals to make sense of things differently.

In her research involving a Canadian community college undergoing organizational change, Amy Thurlow looked at that organization's sensemaking around a significant financial investment. The college had received a \$123 million investment from the provincial government at a time when other postsecondary institutions in the region had experienced a decrease in government funding. This investment came as a response to the college's strategy to convince government that it should become a more modern, national-caliber college. During the 5 years leading up to the announcement of the investment, the college renewed its curriculum, changed its mission and vision, and restructured the organization.

The college's CEO at the time had made the strategy to secure increased funding a cornerstone of his change agenda. The strategy was titled "getting to yes," yes being a positive response from government indicated by the amount of the investment. From the college's perspective, there is no question that the \$123-million-dollar investment by the provincial government translated into an interpretation of change as "successful" at that organization. This marked an important milestone for the college. As one senior manager said, "The \$123 million changed everything—the way we saw ourselves, the way the province saw us, the way the universities looked at us, everything."

As sensemaking is not a linear process, analysis does not happen in a particular sequence. As well, the seven properties of sensemaking are not all equally visible in the process of individual sensemaking. At times, one or more of the properties may play a more significant role in influencing sensemaking than others. For example, in her research Thurlow found that language that described financial pressure was used by management when presenting the need for organizational change to the community college employees. The consequences of not "getting to yes" were clear: The survival of the organization was at stake.

This threat to job security was not new to college employees. At the outset of the change process at the college, six campuses had been completely closed. These were all rural campuses, and the jobs that were lost in those areas would not be easily replaced. As a result of that experience, employees in the rural areas in particular also equated change with the threat of job loss. Even though the CEO

of the college emphasized that there would be no further campus closures, employees were uneasy about job security. The previous campus closures had been positioned as essential to the overall growth and survival of the organization at that time. Nevertheless, the impact on the sensemaking process of the employees who remained was significant. As one employee said, "It contributed to the low self-esteem that characterized the identity of the organization."

That previous experience informed the sensemaking of a number of individuals, particularly at rural campuses. Even after the investment was announced by government, there were several campuses that were cynical about whether or not the money would actually appear.

Although some properties may become more visible from time to time, the seven sensemaking properties may also influence individual sensemaking simultaneously. For example, the property of enactment may become visible in a particular sensemaking process, but that same enactment of meaning may influence the plausibility of other actions, and simultaneously the construction of individual identity. As individuals enact their beliefs, they also make sense of them. And in effect, the use of language in the describing of an event enacts the construction of sensemaking about the event. As a result, individuals within organizations may not make sense of the same event in the same way. To that end, there is no one "right" meaning attached to a given experience. Critical sensemaking offers a frame of analysis that looks at actions and beliefs as driven by plausibility, not accuracy.

Plausibility essentially refers to a sense that one particular meaning or explanation is more meaningful than others. It feels right within the range of possible explanations available to sensemakers in a given situation. There is no specific definition of what makes a particular explanation plausible; however, Weick suggests that options make most sense when there are no better alternatives, other individuals seem enthusiastic about this alternative, other individuals or organizations have taken this same perspective, and/or this explanation resonates most closely with existing identities and perceptions.

In the community college example, the influence of the \$123 million investment reached across the

organization and outside of it. The most immediate effect was the legitimating of the change initiative that the college had embarked upon 5 years before. With that came an important contribution to the construction of identities both for the organization and for individuals within the organization. In particular, the external validation of the college, particularly in comparison to its competitors, had significant influence on how individuals made sense of the effects of change.

In this example, organizational members made sense of change through several interconnected elements. The investment provided an important cue that influenced sensemaking processes. The image of the organization changed externally, and the internal identity of the organization began to follow suit. This cue was also important in enhancing the plausibility of the change agenda in the organization. External validation of the work being done at the college made the repositioning strategy of the organization more plausible, and the social and ongoing nature of sensemaking reinforced the possibility that the new identity was real. The investment strategy was also championed by an individual within the organization who demonstrated discursive power in presenting the narrative of change, extracting cues, and influencing identity construction.

As demonstrated in this example, the critical sensemaking perspective suggests that plausibility is also enhanced by those same factors that privilege some discourses above others. The discursive power of the actor proposing a particular manner in which to make sense of an experience, the access individuals have to a plurality of discourse, and in fact, the access individuals have to the proposed meaning, all influence plausibility. At the community college, the fact that the CEO set a vision, and the organization supported that vision, speaks to the impact of this individual on the language and direction of change at the college.

Although organizational shocks may prompt individuals to draw on a variety of cues from their changing environments, one of the major concepts within critical sensemaking (and sensemaking itself) is the centrality of identity construction to sensemaking processes. Change within organizations may cause individuals to ask questions such as, "Who are we?" or "How do we do things?" The way in which individuals make sense of these

questions impacts their understandings of their own identities and that of the organization. Identity construction is a key component in the process, not just because it influences individual sensemaking, but also because it influences how the other six properties are understood by individuals.

Sensemaking describes a process of identity construction whereby individuals project their identities into an environment and see their identities reflected back. Through this process they come to understand what is meaningful in their own identities. Critical sensemaking shows us that organizational power and dominant assumptions privilege some identities over others and create them as meaningful for individuals. For example, the identity of a "good employee" may be privileged within an organization through texts, language, rules, and more, that emphasize the characteristics of this identity. The construction of this identity may include rules about how employees should function within the organization. Employees may also be encouraged to draw upon cues from their work environment and reflect an identity privileged through other similar organizations or a broader social context. As with all sensemaking, this exercise in identity construction occurs within a social and ongoing process.

Critical Summary

Critical sensemaking provides a framework for understanding how individuals make sense of their environments at a local level while acknowledging power relations in the broader societal context. The critical sensemaking framework takes a very complex combination of variables, including social psychological properties, organizational rules, and the formative context in which organizations exist, and offers an analysis of how these forces combine to allow individuals to make sense of their environments and take action on a day-to-day basis. Critical sensemaking is useful in analyzing the relationship between individual actions and broader societal issues of power and privilege. It also provides a lens through which to view connections between the formative context, organizational rules, and properties of sensemaking that influence how individuals make sense of the world around them. It is, however, a complex process that may evolve in different ways within different contexts.

Given the focus on power relations, this method of analysis is most useful to postpositivist research.

Amy Thurlow

See also Critical Discourse Analysis; Discourse Analysis; Discursive Frame; Organizational Culture; Power; Sensemaking

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Critical Theory

Critical social sciences and critical social theory are related to and stem from Critical Theory tradition.

The concept of "Critical Theory" refers to the intellectual work by philosophers, sociologists, and social thinkers that became known as the Frankfurt School. The Critical Theory is rooted in social philosophy and social sciences history. Critical Theory emphasizes the norms, values, and meanings in the constitution of knowledge of society, on the one hand, and the roles of science and scientists in changing the society, on the other. Critical theory today has broader meaning and carries several notions, layers, and variety of understandings of the term *critical* itself. Over recent years the critical theory has been renewed by the impacts of social theory and social philosophy such as feminist thinking, postmodernism, and critical realism.

Conceptual Overview and Discussion

The history of Critical Theory is important for understanding the role and the position in critical theory in social sciences and in case studies. Originally, Critical Theory linked philosophy closely to the humanities and to social sciences by emphasizing the contextual empirical social research and normative truth claims, morality, and justice simultaneously, all in the same research agenda. The term *Critical Theory* with capital letters is used when referring to original ideas, and *critical theory* when referring to more general critical theories in social sciences that have closer or more distant relationship with the original specificities of Critical Theory. The newer versions of critical theory have developed their own forms of critical practices and critical research agendas through several current debates. Key conceptual background ideas and overview are needed for understanding the contemporary varieties of critical theory in case studies and in social sciences in general.

Critical theory has strong roots in specific fields and developments within European philosophy, on the one hand, and historical time and societal situation on the other. In its historical form the idea, tradition, and concept of Critical Theory refers to the intellectual work by philosophers, sociologists, and social thinkers that became known as the Frankfurt School. The Frankfurt School was located at the Institute for Social Sciences (Institut für Sozialforschung) at Frankfurt am Main University in Germany in the 1920s. During World War II, the Institute was brought to New York, to

Columbia University; it returned to Frankfurt in 1950s, with Max Horkheimer as director of the Institute of Social Research. Major thinkers in the Frankfurt School group include Max Horkheimer, Theodor W. Adorno, Walter Benjamin, Herbert Marcuse, Erich Fromm, and Jürgen Habermas.

The Frankfurt School's Critical Theory has the scientific and practical intentions to relate the knowledge achieved through research and mundane social life with each other. In practice, empirical research adopts the critical reflection as method, in addition to theoretical aims. According to Critical Theory, the research needs to relate the philosophy and the social sciences and their ways of describing the world through explanation and understanding. The scholars involved in the early stages of the Frankfurt School were concerned with the complexities of the economic foundation of society, the political-legal factors of society, and the intellectual life in community and society in general. In research, the aim was to combine moral views and practical questions and implications of social research.

The Frankfurt School and Critical Theory grew influential in the social sciences from the 1930s onward. Critical Theory diverged from the positivist preferences of German philosophical circles in the 1930s. The enduring ideas in Critical Theory thinking have been the analysis of structural relationships of power, control, and discrimination mediated through language, and the understanding of the activity and role of the knowing subject in these processes. These ideas have since the birth of Critical Theory been developed elsewhere within the philosophy of social sciences, and from many different epistemic positions, with the overarching label of critical theory. However, not just any theory or research is critical, even if it would label itself so. Whether the original idea of the Frankfurt School or more broadly defined versions of critical theory is being discussed, the general aim of critical theory is to explore the world with a broader lens than, for example, hypothetico-deductive method enables.

The three criteria set for research in Critical Theory were the following: critical theory research must be simultaneously *explanatory*, *practical*, *and normative*. Research needs to explain the object of study in a nomological, interpretative, or historicist way. Research needs to be practical and not

abstract empiricist by orientation. Research needs to be normative, that is, its results should indicate what ought to be. Normative social science admits to bias and subjectivity of research, unlike positive social science. The distinction between positive and normative social science rests on the so-called fact/value dichotomy, which no longer prevails in philosophy. In addition to this, there are also other reasons that critical theory does not fully follow the original thinking of Critical Theory.

The original Critical Theory emphasized the integration of theory and practice so that individuals can then reflect on the results and learn from them in order to be able to change their lives, habits, and surrounding societies. Critical Theory in general distances social sciences research from the assumptions and methods of the natural sciences by emphasizing the role and position of norms, values, and meanings in the constitution of knowledge, and the active roles of science and scientists in changing the society. Theodor Adorno, who was influential in Critical Theory, underlined immanent criticism as the key method for Critical Theory research.

Immanent criticism in research means thorough critique, both throughout and within the research project. Immanent criticism as method challenges both the belief systems and social relations. The method aims not for standard variable-based comparisons but to establish and show discrepancies in thinking. Habermas, a notable figure in critical theory, emphasizes the theory of rationality and with that sets a standard against purely interpretative, hermeneutic, and relativist positions in research. The contextual lifeworlds and their analysis were originally one of the key ideas in the Critical Theory by Horkheimer and also by Habermas.

Several substantive issues are central to critical theory in general. First is the domain of *methodology*, not as concrete practices and methods of research but as philosophical prerequisites and approaches embedded in the practices. The domain of *modernity* and its substance and understanding of modernity and postmodernity is also important, as is the domain of *critique*: How and in what ways could and should critical theory be related to practice and to everyday lives? The relationship between "empirical data" and theoretical framework is complex in critical theory, and critical

theory's overall research setting is a mixture of normative and practical aims. In the broad, contemporary, but also in the narrow, traditional senses a critical theory provides the descriptive and normative bases for social inquiry aimed at decreasing domination and increasing freedom in society in all its forms. Critical research at large consists of a broad field of inquiries, and it has close connections to the philosophy of the social sciences and in a different way to Critical Theory as well. For these reasons, the method of critical research is also closely connected to specific traditions within social sciences and philosophy.

Critical Theory acknowledges the existence of structures and mechanisms of the world. These structures and mechanisms are seen as existing beyond the pure constructivist idea, as elements in society and emergent and knowledgeable to the researcher. In other words, neither the original form of Critical Theory nor most of the present critical theory support the ideas of the social constructionist approach without reservations. Even if critical theory acknowledges the existence of several understandings of the world, it usually emphasizes the existing structures and mechanisms related to these structures. The values involved in a given critique are always partial and also subject to selfevaluation. Critical theory brought forward the critique of positivism, and emphasized a critical approach to social analysis that would promote social transformation.

Craig Calhoun has written widely on Critical Theory. He suggests that critical theory generates critique broadly in three different ways: in engagement with the contemporary social world, in engagement with the historical and cultural conditions of intellectual activity, and in engagement with the reexamination of categories and frameworks used in research. In critical research in social sciences, the relationship between empirical data and theoretical framework is seen as a very complex one: the world—be it the economy or social group—and theory describing this world are not seen as apart and separate from each other as in positivist research tradition. However, the world, its units, or actors—or objects of analysis are not seen in Critical Theory as socially constructed, either, or as dependent only on the speech acts and constructions that are continually reconstructed and reinterpreted.

Methodological reflexivity is another feature of critical aspect in research: Methodological reflexivity includes the questioning of what is known about the world and in what ways. The conceptual tools common to critical research relate to the centrality of language, the interpretive approach to human behavior, and the importance of self-reflexivity. The questions of how and in what ways critical theory is to be applied at a practical level in research remained somewhat unanswered, or of lesser interest, within critical theory for a long time. In critical theory, the law-like generalizations concerning society or the research target are seen as both highly problematic and questionable. According to critical theory, the nature of any social scientific theory is shaped by the historicity of the study objects it seeks to explain.

Calling research "critical" in research settings is not enough theoretically or methodologically for critical research. There are specific methodical and methodological issues that relate to and are crucial for the theoretical ideas of critical research. Such specific contemporary research methods are, for example, critical discourse analysis, genealogy, and critical hermeneutic approach, all of which can be used in case study research. Critical discourse analysis (CDA) focuses on analyzing structural relationships of power, dominance, and control as manifested in language. As an example, the analysis of discourse opens up an issue on social problems as they are largely constituted in language, and for their part, discourses constitute society and culture. Most critical discourse analysts subscribe to Habermas's notion of language as a medium of social force, power, and legitimation of organized power. Genealogy or genealogical inquiry examines the conditions under which the different ways of interpreting and evaluating ourselves have come to exist. The purpose of the genealogical method is to analyze and excavate the taken-for-granted interpretations of concepts, theories, and methods used in research. The *critical hermeneutic approach* acknowledges the question of power, the potential misuse of language, and recognizes the importance of communicative aspects in research. The critical hermeneutic approach analyzes so-called latent structures and rules of meaning that underlie social practices and subjective meanings. These structures are latent, that is, they are not restricted to the agencies' discursive knowledge, and they are independent of their subjective intentions and meanings.

A challenge for any researcher trying to establish critical research in empirical settings in case study or in general is to find ways to link the detailed analysis of research materials to wider societal and social structures and power relations. There are different ways to do this: Consider the subject in wider context and focus on wider structural relations and examine the social processes. Ethnography offers one way to handle the complexity of the theoretical views of critical theory, but does not on its own stand for critical research.

In research settings, a critical theory approach means a tight connection between the method and methodology, various theoretical discussions, and ensuring the complexity of data analysis. Therefore, no single clear how-to pattern for critical approach in empirical settings can be given, as there are varieties of ways to do critical analysis in case studies. Case study settings offer one way of handling the complexity of data materials and multilevel relationship with the key ideas of critical research.

Application

Application of critical theory can take many forms in case studies. The cases do not necessarily need to be empirical by nature, such as firm, company or social group, or individual. Cases can also consist of a time-limited process or phenomenon. Two exemplars of critical theory applications that can be considered as case studies are Seppo Poutanen's analysis of lack of dialogue between critical realism and poststructuralist feminism, and David Boje's re-analysis of research on Nike, Inc.'s manufacturing operations in Vietnam.

Poutanen analyzes a dialogue carried on by economists and feminist social theorists in the journal *Feminist Economics* between 1999 and 2003. The topic was the attention to philosophical ontological analysis in feminist theories and in critical realism. This article is an example of a time-limited theoretical case that uses a genealogical method in the analysis of a process of dialogue that took place in journal articles over a 4-year period. Poutanen analyzes the dialogue with the help of analytical philosophical argumentation and shows that in spite of the participants' best efforts and the high quality of their contributions,

the overall result leaves a strong impression of a kind of shadow-boxing. In the spirit of critical theory, Poutanen concludes that there is a need for real, open dialogue that might shake up the ontological and epistemological cornerstones of differing positions.

Boje's article includes both empirical materials and the issues taken up earlier on revisiting the theoretical standpoints for research. Boje analyzes the case described by two colleagues on Nike's salaries in a Vietnamese factory, where the argument was based on empirical evidence that the Nike subcontract workers in Vietnam are able to save 44% of their monthly wages as discretionary income. Boje re-analyzes the available data, readjusts the calculation procedures, and reveals the method problems in the original article, which grossly distort the results presented. In a critical theory spirit, he then opens up the issue for normative and value judgments on salary levels in multinational corporations.

Critical Summary

New challenges for critical theory and critical research are being put forward by the complexity of the connection between theory and practice, the possibilities opened up by feminist and emancipatory critique of social theory in general, and recent epistemological debates in the social sciences. Case research settings, with a demand for complexity of empirical materials and constrained time-space approach, might open up fruitful avenues for furthering critical theory and critical research.

Seppo Poutanen and Anne Kovalainen

See also Critical Discourse Analysis; Critical Realism; Discourse Ethics; Genealogy

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CROSS-CASE SYNTHESIS AND ANALYSIS

Use of the case study in the natural and social sciences began in the early 20th century with the establishment of the concept of a case history in medicine. The case study is also used outside of the natural and social sciences in education, educational evaluation, and as a teaching method in business and law. In the contemporary social sciences, the case study can be a single case or multiple cases. One method of studying multiple cases is the cross-case design proposed by Matthew B. Miles and A. Michael Huberman. While Miles and Huberman are credited with stipulating the precise logics and mechanics of this approach, it has a long history and wide usage beyond their specific formulation and is a general qualitative research strategy. While the single case study emphasizes close inspection and description of one case, the cross-case is used to reinforce validity, support generalizability, and promote theoretical elaboration. In psychology, Sigmund Freud's theory of psychoanalysis is perhaps the most widely known example of cross-case synthesis and analysis. In sociology, a cross-case methodology is the logic inherent in Barney Glaser and Anselm Strauss's constant comparative method for the generation of grounded theory.

Conceptual Overview and Discussion

Miles and Huberman propose two interdependent strategies for cross-case analysis: variable-oriented analysis and cross-case analysis. They formulate the cross-case method as follows. First, the researcher conducts two or more descriptive case studies using the process known as *thick description*. Then the

researcher examines a particular case for emergent patterns. The second step involves identifying the presence or absence of and alternatives to these patterns occurring in one or more other cases. Doing this analysis across a number of cases allows for the identification of similarities and differences across the cases and the identification of common themes.

Miles and Huberman recommend that researchers then subject the themes across all of the cases to variable-oriented analysis. First, standard variables across the cases and within the themes are identified. Each case is then written up and presented in a matrix, in as much detail as possible, with reference to these standard variables. Finally, a meta-matrix is created through synthesis or "stacking" of the variables across all of the cases. In this way the researcher retains both the detail of the individual cases and partial but overall explanation of a number of cases.

A good example of this method can be found in Molla S. Donaldson's study on the quality of healthcare in the United States. The results are based on thick description and the analysis of 45 healthcare delivery units, one of which was in Canada and one other in the United Kingdom. Interviews were conducted in seven cities in a variety of types of healthcare delivery locations such as hospitals, primary care centers, and family physicians, with large numbers of persons including some 270,000 patients and 15 medical teams. The protocol suggested by Miles and Huberman is followed closely: 14 variables are identified and then refined, through cross-case analysis, into eight themes. Generalizations about how healthcare delivery systems function and broader issues such as the sources of excellence and innovation among them as well as suggestions for future training of healthcare professionals and formulating healthcare policy are then made.

The cross-case method of Miles and Huberman is rarely followed in its entirety by contemporary researchers. Researchers interested in moving beyond description and extending the generalizability of their case study will invariably analyze one or more cases. A more widely used approach is the constant comparative method of Glaser and Strauss. They provide five compelling reasons for the use of comparisons across and within cases: (1) to ensure accuracy of the evidence, (2) to establish

the generality of a fact, (3) to clarify the relevant particulars of a case, (4) to test theory, and (5) to generate theory.

Once themes in the data and their associated concepts have been identified, Glaser and Strauss propose four steps in the comparative process. First, they compare the various incidents wherein the category was identified. This involves comparing the extent to which a concept (e.g., "social loss") in one case occurs in other cases and then comparing the different aspects of each incident across cases. Second, they integrate the concepts and their properties. This involves noting relationships among and variations within the categories and their variation within and across the cases. For example, when does the concept of social loss occur in different cases and under what conditions? Third, they delimit the theory, once the patterns of relationships within the categories have become apparent and some relationships become more evident than others. The number of categories and their properties can therefore be reduced, and this leads to broader generalizations. Finally, they write the theory. In the act of writing, the relationships between the categories and their properties change because researcher understanding is modified and altered during the writing stage. The writing stage is thus regarded as part of the research process.

Application

As a basic method for generalizing beyond the individual case, cross-case analysis and synthesis are ubiquitous in qualitative research. Robert Yin provides three examples of the cross-case method: One is a single case that is drawn from a larger comparative study of eight cases, the second covers two cases, and the third covers seven cases. The first describes the Korean company Samsung and its strategies in developing and marketing microwaves, which in the larger comparative study is used to demonstrate principles regarding Third World manufacturing and growth. This is a good example of how the initial case sets the precedent for the latter cases because it provides keys to the analyses of the other cases and is thus the basis for the entire study.

The second presents two cases of types of industry (aeronautic and microelectronics) and examines

the role of government funding in the development of industrial planning. This study demonstrates that even two cases are a useful cross-case method because the second case, while still limited in strength, allows for greater generalizability and validity than would be possible for only a single case. This is a particularly important strategy when the research contravenes conventional wisdom.

The third is a study of seven different locations where the government had initiated the same program for housing developments. This study demonstrates how to identify themes across a number of cases. Detailed explication of the seven cases is provided only in an appendix. Rather than discussing each case, the researcher integrates the evidence from all of the cases and identifies the common themes among them. From these emergent categories, a number of generalizations regarding the specific program are stipulated. These are then used to draw general conclusions about the limitations of implementing federal policies without detailed knowledge of and consultation with local politics and interest groups.

Critical Summary

There are potential weaknesses that hinder the cross-case study. These are most critical for data collection on the first case during the early stages of the research, and have an impact on outcomes regarding judgments on the validity and generalizability of the findings. The concern for validity may occur because as the number of cases increases, the amount of data collected on each case is likely to decrease and chances of error (validity) in the information are therefore increased because particular aspects in the one case may be overlooked in the search for commonalities across the cases. These problems are further exacerbated by the fact that the number of case studies undertaken is usually limited by the amount of resources needed versus what is available.

A second question regarding validity refers to the amount of evidence required to support the researcher's claims. As with all case studies, it is impossible to know whether or not all of the relevant cases have been observed. When theorizing to a finite and relatively small population or a single case, one or a few cases will suffice; however, in attempting to theorize beyond the single case or to a relatively

large finite population, problems may arise. Martyn Hammersley suggests the generalizability of the cross-case study can be improved in the following ways: select cases that cover some of the main dimensions of suspected heterogeneity in the population, make brief investigations of one or more other cases in order to asses the ways in which the primary case is or is not representative of the larger population, and, finally, compare the findings with studies that have been carried out by others on cases in the same population in the same time period.

Another source of potential weakness of the case study is unrepresentativeness or the extent to which the study accurately represents the population it is intended to describe, explain, or theorize. Although we can never know with certainty whether or not an account is true, we must attempt to judge the adequacy of the evidence provided in support of those claims. Hammersley provides three guidelines. The first concerns plausibility and credibility: Does the explanation make sense? Is it plausible to other researchers? The second involves the centrality of the claim to the argument presented: The more central the claim is to our explanation, the more plausible it must be and the more evidence is required to support its plausibility. Third, different types of claims require more or less evidence: If your claims have significant consequences, then they require additional evidentiary support. The stronger the claims, the stronger the evidence required in support of them.

Janet M. C. Burns

See also Case-to-Case Synthesis; Generalizability; Grounded Theory; Validity

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Cross-Sectional Design

Cross-sectional design refers to studies in which data are collected at one time period only. The aim is to access, at one time point, a representation of the population of interest. This contrasts with longitudinal design where the aim is to collect data at several time points. In research areas that are particularly concerned with development trajectories and age or experience differences, as in education and developmental psychology, the cross-sectional design is often considered as an alternative to longitudinal design. For example, where a longitudinal study of children's reasoning abilities would collect data from a group of children at several time points—for example, at their third, fourth, and fifth birthdays—a crosssectional study would collect data at only one time period and include data from different children who are 3, 4, and 5 years old.

Conceptual Overview and Discussion

The broad meaning of cross-sectional design data collected at one time period—can present some definitional challenges. The distinction between data collected at one time period and data collected over time can be a difficult one. The definition of a single time period can vary from a single visit to a site on one day, to visits conducted over a whole year or more. In the case of longer time periods, the distinction is primarily in the intent of the study. If change over time is an aspect of the study-for example, if changes in nursing practices are explored over one year as a hospital implements new policies—then the study is employing a longitudinal design. If, on the other hand, the intent is to explore nurses' reactions to the variety of cases in a hospital emergency room during one year, not the changes in their reactions, the study would be considered primarily cross-sectional.

From this broad perspective, cross-sectional design is applicable to all types of case studies. Using Robert Yin's classifications, cross-sectional designs can be applied to both single and multiple case studies, including those that are holistic and embedded. For example, a single holistic case study of a marketing firm would be considered cross-sectional if it is conducted over one defined

time period and includes a cross-section of employees from all levels in the firm. This approach can be extended to single embedded case studies and all forms of multiple case studies. In specific reference to the multiple case study, John Gerring uses the term *cross-sectional design* to refer to situations where many cases are being used for crosscase analysis without temporal variation.

From a developmental perspective, cross-sectional case studies should include participants selected from different stages in their trajectories (e.g., ages, grades, or years of experience). In a single embedded case study this could take the form of a whole-school case with embedded groups at each grade level. In a multiple case study this could be accomplished through defining each class as a case and choosing classes from different grade levels.

In these developmental situations, the cross-sectional design is often used as a substitute for a longitudinal design. Rather than comparing the same students, for example, as they change over time, changes are explored by looking at groups of students of different ages. The primary reasons for conducting a cross-sectional study rather than a longitudinal one are the savings in cost and time associated with collecting data. The drawbacks, however, include the inability to distinguish between true age-related changes and age differences due to other factors, including cohort factors, and the inability to understand individual change. Individuals may still be defined as the unit of analysis, but individual change cannot be analyzed.

In other situations, however, cross-sectional design may be the only appropriate structure. Researchers interested in the implementation of an anti-bullying program in a school may want to use case studies to understand the most appropriate age for the program. They would choose a multiple-case design with cases at different grade levels. It would be inappropriate to study the same students receiving the program year after year.

In addition, there are also hybrid varieties where cross-sectional designs are followed through time. Gerring describes a time-series cross-sectional design where several cases are studied, each at several matching time intervals. These can also be described as cohort-sequential designs. An example might include three case study school classes, one in the first grade, one in the second, and one

in the third. If they are studied for 3 years, crosssectional data are available for students in first through fifth grades, thereby saving time over a true longitudinal design. In addition, some of the cohort effects of a true cross-sectional design are lessened because cross-case analysis in the same grade is possible and individual change over time for students in different cohorts can be studied.

Application

Zoe Barley and Andrea Beesley's study of successful high-needs rural schools provides a clear example of multiple holistic case studies applying a cross-sectional design. Six schools, in three states, were selected as case study schools to provide exemplars of success. A single visit was conducted at each school and included focus groups and interviews with community members, parents, school board members, teachers, and the principal—a cross-section of the school's stakeholders and decision makers. This is an uncomplicated example with the single time period approach applied unambiguously through a single visit to each school. It illustrates the use of cross-sectional design to ensure a broad and thorough understanding of the case from multiple perspectives.

In a similarly uncomplicated application of multiple case cross-sectional design in a developmental context, Shin-Ju Lin, Brandon Monroe, and Gary Troia interviewed and constructed case studies for 28 students, 4 students from each of Grades 2 through 8. In each grade, 2 students were identified as developing writers and 2 identified as struggling writers. Patterns in the differences between the two types of writers were traced across the grade levels. This case exemplifies the use of cross-sectional design instead of longitudinal design.

The approach taken by Lourdes Rodriguez and Francisco Cano in their study of university students' learning approaches and epistemological beliefs exemplifies a hybrid cross-sectional-longitudinal design. Their case level was a teacher education program, and two cross-sectional levels (students in their first and their final years of study) were studied at the same time period. In addition, participants from the first-year cohort were randomly selected to participate at a second time period (during their final year of study). Differences in epistemological beliefs by age and

program level were explored through both the cross-sectional sample and the longitudinal sample. The findings from this study also highlight the problematic nature of cross-sectional designs as some of the findings were evident in the longitudinal analysis and masked by cohort effects in the cross-sectional analysis.

Critical Summary

Cross-sectional designs support the researcher in ensuring that a broad and complete sample of relevant case constituents are included while also providing a means of studying developmental effects without the extreme costs associated with longitudinal studies. It is an adaptable design structure, flexible enough to be used in both single and multiple case studies. Caution should be used, however, in its application as replacement for longitudinal study as cohort effects may limit effectiveness.

Marie-Claire Shanahan

See also Case Within a Case; Cross-Case Synthesis and Analysis; Longitudinal Research; Multiple-Case Designs; Repeated Observations; Sampling; Single-Case Designs

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CULTURAL SENSITIVITY AND CASE STUDY

Cultural sensitivity is the awareness of cultural factors that influence research. It requires researchers to respect population diversity, understand the perceptions of a cultural group, and reflect on their own assumptions. Cultural sensitivity is a necessary prerequisite to developing cultural competence within the research setting; that is, the ability to make informed decisions when researching cultures different from one's own.

Conceptual Overview and Discussion

Within the current climate of multiculturalism and plurality, research methods are needed that are culturally sensitive and can be used for working with diverse culture-sharing groups. Culture-sharing groups are those that have, for instance, common beliefs, behaviors, rituals, and communication styles. A culture might include ethnic groups such as a particular Indigenous tribe, or groups such as sex trade workers or skateboarders. Culture sensitivity requires researchers to develop knowledge about another cultural group and the skills and attitudes required to work with the group's members. Knowledge would include understanding traditions and practices such as initiation rites or specialized vocabulary. Skills would include learning verbal and nonverbal cues such as nicknames or hand gestures. Attitudes would include flexibility and patience.

Case study research enables researchers to investigate phenomena within a particular context. Pilot studies using this approach are particularly important for developing cultural sensitivity; they help researchers gain knowledge, practice skills, and develop attitudes to prepare for longerterm work involving a larger sample of the culture-sharing group. Establishing relationships with representatives of the group or gatekeepers will assist researchers to appreciate how cultural factors operate in the research setting and help in developing culturally sensitive protocols for activities such as accessing participants, gaining informed consent, or gathering data. Researchers need to assess their own values and attitudes about the culture, keep detailed field notes, and continually reevaluate personal reactions while working with participant groups. The development of rapport with culture members, based on trust and respect, can help mitigate miscommunication and false assumptions due to lack of understanding.

Researchers need to step aside from the traditional role of power in the research relationship and view participants as their teachers. Nonhierarchical ways of engaging with research participants can help establish respect for a culture's ways of knowing. For example, researchers who are culturally sensitive might adopt culturally appropriate approaches to sharing information, such as using talking circles with Indigenous participants to ensure each member has an opportunity to speak. Participants' theories about phenomena observed in the cultural setting inform the study and are placed alongside the researcher's theories for further discussion.

Representing the case in a culturally sensitive fashion involves the use of thick description and frequent member checks to show respect for participants' understandings of the phenomenon of study. Innovative and culturally sensitive ways of sharing knowledge about the case also are needed. Groups with oral traditions might receive researchers' comments in narrative format, for example. Researchers need to be reminded that transferring findings to a group outside of the culture may be disrespectful to both the community that offered to participate in the research and the group outside the culture. It cannot be assumed, for example, that findings from one group of Indigenous people can be used in another Indigenous community. Recommendations arising from the research need to be culturally relevant for the specific group.

Application

Two examples of culturally sensitive case studies are described below. One study was conducted by Elizabeth Banister and Deborah Begoray in a Canadian Indigenous community; the second study, by Stephen Margolis and Valmae Ypinazar, took place in the United Arab Emirates.

Banister and Begoray's case study on adolescent girls' perceptions of sexual health began with a pilot phase to ascertain the needs of the culture sharing group: 10 14- to 16-year-old Indigenous girls attending the same rural secondary school—all from the same Coast Salish tribe on Canada's west coast. Access to the community was achieved through permission of the band council and the school principal. An Elder assisted the researchers

to gain knowledge about the Indigenous culture, including ways of sharing knowledge through storytelling and drawing. The researchers also attended school events, including the school picnic and graduation ceremony.

While the researchers were interested in developing a case study, members of the cultural group also wanted to benefit from the researchers' presence and gain expertise in matters of sexual health. The researchers learned how to work in traditional groups with members of different ages, to engage with the girls through techniques such as the creation of traditional crafts, and to invite the participation of the wider community through interviews with parents and other community adults.

Margolis and Ypinazar examined older Arabian Gulf Arabs' perceptions of religion, health, and illness to inform the delivery of culturally sensitive care for this community. The study sample consisted of 10 participants who were 65 years of age and over, Muslim, Arab, and residents in the United Arab Emirates for more than 50 years. Qualitative interviews were conducted in Arabic by two research assistants, both practicing Muslims and fluent in speaking Arabic and English. Interviews took place in the privacy of participants' own homes. Sharing a common religion and language and locating the interviews in a familiar space offered a culturally sensitive advantage to the research design.

Critical Summary

Case study research offers a high level of contextual and specific knowledge. The use of case study methods can help researchers transcend ethnocentric attitudes toward cultural groups under study. Culturally appropriate research activities that are tailored to the needs of the community will contribute to rich understandings of the culture-sharing group and enhance the overall credibility of the study.

Elizabeth M. Banister, Deborah L. Begoray, Laura E. Nimmon

See also Discursive Frame; Formative Context; Language and Cultural Barriers; Native Points of View; One-Dimensional Culture; Participatory Case Study; Reflexivity

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Dasein

Martin Heidegger's notion of *Dasein* is the central organizing feature of his existential phenomenology as formulated in Being and Time. Heidegger employed the notion of Dasein to distinguish his conception from subjectivist individualism, which views the self as a pure "I" or pure consciousness independent of body and world, and an objectivism that views the world as inert matter to be mastered and controlled by subjects. Rejecting this subject/object model, Heidegger situated being human in a domain that is neither objective nor subjective but as a relation—a form of being in the world. Dasein is practically rather than theoretically oriented; it is not a substance or a thing, but practically situated and interested human activity. Understanding and knowing are elements of being in the world and not of disinterested subjectivity. Although Heidegger eschewed epistemology or method, his conception of Dasein has had a major impact on social science research and on the nature of qualitative research.

Conceptual Overview and Discussion

The basic feature of human being or Dasein is that it is *self-interpreting*. Dasein is the being that asks about its own being, which is what it is to be human. Dasein is the kind of being—the only kind of being—whose existence is a problem for itself. Dasein takes a stand on what is to be human. Human beings (Dasein) are unique because "their

way of being embodies an understanding of what it is to be." Dasein is activity. Being human means having to make sense of one's own existence to grasp one's own projects and prospects as one's own and to grasp them as part of one's own identity. This self-interpreting way of being is existence. Consciousness is not the condition of being but rather being is the condition of consciousness. Because our existential nature is the reason we can represent beings, consciousness presupposes existence.

For Heidegger's teacher Edmund Husserl, phenomenological philosophy began from the supposition of pure consciousness. Theory alone, not deficient ordinary understanding, made phenomena ultimately intelligible in their true nature. Husserl employed the modern ideal of knowledge free from presuppositions. By eliminating all our interests and involvements Husserl sought a pure intuition of things themselves. Heidegger rejected this approach. He held that we can only know the world because of our involvements. Knowledge requires presuppositions and context-bound understanding. Heidegger, in contrast, began with the idea that phenomenology was a clarification of fundamental understanding that was always already there. He suggested that humans do not originate meaning or the world as an individual ego or transcendental subject; these features precede us. The task of phenomenology, then, is not to provide a better understanding of theory but to bring to light what is already inherent in the lifeworld. Participants in the lifeworld already know the world through their own practical skill and mastery. They know

the world because they inhabit it and because they live in the world with others. Knowledge is a practical achievement. Our practical knowledge, however, is largely implicit, a kind of global know-how that precedes our conscious elaboration.

In opposition to Husserl, Heidegger termed this philosophical procedure *hermeneutical*. Heidegger used the term *hermeneutics* in a radically new way. It was not a special procedure or mode of inquiry; it was Dasein's basic mode of being. Hermeneutics originally began as a procedure for recovering the meaning of historically and culturally distant texts. This conception provided an alternative to the model of absolute certainty associated with subjectcentered philosophy by claiming that we begin interpretation from a position inside of language and society and never can step outside of this interpretive frame. Heidegger took this model of interpreters enmeshed in language and society, which was also used by the human sciences in Germany, and generalized it to include everyday activity. Interpretation did not claim to uncover a selfidentical object fully present to consciousness but was incomplete by its very nature. In objectifying some aspect of Being (as a posited being), it always left another aspect hidden. Interpretive phenomenology was not, however, idealist. Heidegger argued that the world exists independent of human beings but is meaningful only through our interpretations.

Understanding ourselves and our relation to the world is primarily practical. Human activity is engaged in the world and occurs in the midst of things. Dasein is historical. Humans are not primarily observers or pure minds who stand outside of time and place but are "thrown" into the midst of things. We are born into a family, a society, or a polity at a specific time and place, and this influences our understanding of the world. We understand ourselves and others through a shared language and through our participation and engagement in the world. We never know this world in isolation. Heidegger argued that the social world is always a mitsein, that is, a being-with world. There we encounter others who are not "for the sake of" something but others like ourselves, beings who interpret and act in the world.

Heidegger saw our primary mode of engagement as "care" or concern (*sorge*). Our commitments and concerns shape our lives. These might be considered our "essence." Yet we are not simply determined by

our circumstances and situation but play a role in determining our own existence. Heidegger saw Dasein as future oriented. We can form projects and plans based on the person we want to be. In order to act authentically, we have to take up the situation we are in and take responsibility for it. This aspect of self-determination is central to Heidegger's notion of authenticity. Being belongs to us. Our projects must also encounter the fact of death or temporality. For Heidegger, death was both a limit to life and that which makes life itself meaningful. Projects can never be infinite or unlimited in time; they have to account for our finitude. Heidegger argued that in order to make an authentic existence we have to discover our own unique historical destiny. We may have a fate, but that fate is determined not by the weight of circumstances but by our own interpretation of that world and its future possibilities. Ordinary Dasein, the average understanding, sometimes stands in the way of authenticity. Everyday life is largely one of conformity to social norms, a part of the mass society that Heidegger disliked. This "they world" of anonymous conformity conceals a genuine relation to one's self and one's destiny. In a world in which science and religion provide notions of infinite mastery or transcendental understanding, it takes courage to face finitude, something Heidegger called resoluteness. The latter, however, has some politically authoritarian overtones.

Heidegger's Engagements

There are elements of Heidegger's account of Dasein, as well as in his own biography, that affirm this anti-democratic interpretation. The authoritarian turn is more than a simple account of authenticity. In Heidegger's view, "resoluteness" and "decision" are linked to "conservative revolution." This reading, however, requires a linking of Heidegger's conception of Dasein to his cultural critique of modern society and his notions of (conservative) cultural renewal. These issues of content apply more to the philosophical political context of Heidegger's thought and less on his influence on models of social inquiry.

Application

Heidegger's conception of Dasein had both a direct and an indirect influence on case studies. His

philosophy represented a further elaboration of the interpretive method developed by advocates of the human sciences approach in the methodological conflicts of 19th-century Germany. He avoided some of the objectivism (and, to his mind, subjectivism) inherent in historicism and Dilthey's approach to the human sciences, and he clarified the distinctive nature of the practical participants' perspective on knowledge. Social inquiry depends on this unique interpretive access to the social world. Later thinkers, such as Hans George Gadamer, Paul Ricoeur, Charles Taylor, and Jürgen Habermas, have critically refined these insights employing a greater emphasis on mutual understanding and accountability that address lacunae in Heidegger's conception of social life.

Heidegger's conception of Dasein was a direct influence on the school of existential psychology practiced by psychologists such as Ludwig Binswanger, Viktor von Weizsacker, Eugene Minkowski, and Rollo May. Dasein analysis created by Heidegger's friend Menard Boss focused on elements of Heidegger's philosophy, such as Beingtoward death, own-ness, and authenticity to analyze individual behavior. In case studies, Boss and Binswanger emphasized not the unconscious motives of the Freudian psychology but its structure as exemplified in Heidegger's conception of being human. They looked at the way the individuals take a stand or fail to take a stand on their own being.

Social scientist Bent Flyvbjerg has employed Hubert Dreyfus's reading of Heidegger to suggest an account of the case study method based on the phronetic (i.e., interpretive) insight of the social inquirer. In Flyvbjerg's conception of phronetic social science the essence of the case study method is its ability to provide insight into the typical structure of an issue or problem. The validity of insight does not depend on the use of a variety of cases from which the social inquirer can make generalizations, or in any quasi-scientific design, but from an authentic insight into the nature of a constellation that might be gleaned from a single case. It provides understanding rather than prediction. Insight, however, is more a matter of the virtuoso skill of the inquirer, the experience and judgment to recognize patterns. It is a matter of phronesis, that is, the practice knowledge of a participant who learns to grasp patterns of life from the inside. Like Alastair MacIntyre, Flyvbjerg's approach differs from comparative case studies. Here, cases are compared and contrasted in order to extract elements common to the phenomena under study.

Other scholars influenced by phronetic social science have extended the use of authentic or committed social science in the direction of participatory action research. Here, much like in participant observation, the inquirer is involved in the group under study so that he or she can understand the meaningful activities of the social group from the members' own perspective. Although the participant observer may still maintain a certain social distance from the group, participatory action research involves a commitment by the inquirer to a project in which she is often an advocate. This yields knowledge not only of the reasons and meanings employed by others but also a strong form of committed knowledge that grasps the strategies and tactics of power employed by actors in a situation from the inside.

Critical Summary

Heidegger's notion of Dasein has been criticized for its inadequate account of responsibility. Critics feel that authentic choice for Heidegger is more a matter of pure decision than of a genuine critical consciousness.

Brian Caterino

See also Case Study Research in Political Science; Critical Theory; Hermeneutics; Participatory Action Research; Phenomenology; Poststructuralism; Verstehen

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DATA RESOURCES

Data resources provide evidence for case study research. Conducting a case study involves gathering an extensive array of data resources related to the central phenomenon under investigation, that is, accumulating evidence about the case. Data resources may include documentation, archival records, artifacts, interactions, or direct observations; all can become evidence in case study research. The various data resources are woven together into a coherent description, exploration, or explanation of the case.

Conceptual Overview and Discussion

Varied Types of Data Resources

As a research tradition, case study research can involve an eclectic mix of research methods and data resources. One single kind or source of evidence is typically insufficient to sustain a case study; instead, multiple sources of evidence are generally considered essential because of the need for extended descriptions to understand a given case. Multiple data resources provide a description of the case from different angles and perspectives and allow researchers to address possible discrepancies or inaccuracies that could result from a single data resource.

Case studies tend to focus on cases as they occur in natural, real-world settings. To understand such settings it is common to review documents, artifacts, and archival records that have accumulated before and during the case study research period. These data resources might include policy statements, guidelines, reports, letters, memos, meeting minutes, account books, school records, site blueprints and layouts, Web pages, brochures, posters, work products, and so forth. Researchers may consider textual and visual aspects of these resources. In addition, researchers may seek written evidence from participants in the form of questionnaires, journals, stories, sketches, and other such materials.

Interviews are another common interactive method of gathering data for case study research. These interviews could be formal or informal, structured or unstructured, and individual or collective (e.g., focus groups). Interview records might be documented in audio or video recordings, field notes, or transcripts. Interviews could be conducted with individuals who are the focus for the case or with individuals who help to elucidate the case without being the focus of that case (e.g., a case study of a child with special needs might involve interviews with the child her- or himself or interviews with any combination of parents, siblings, teachers, and other individuals who could help the researcher understand the child).

Direct observations for a case study tend to be recorded on site in field notes (which may include textual data, sketches, and maps) and checklists, but they could also be drawn from audio or video recordings or photographs. As well, some researchers rely on trace data captured by software and computer logs, wear patterns left behind in a site, and similar evidence.

It is not always possible to predict in advance what data resources will be most useful or informative for a case study; therefore, case study researchers tend to begin their studies with a broad focus on accumulating any available evidence. Some researchers might characterize the early phases of case study research as a brainstorming approach whereby they consider all kinds of data resources without prescreening, judging, or limiting options. As the study takes shape, researchers become more conscious of the desirable foci for the case study and the relevance of potential data resources.

In collective or comparative case study research, researchers need to be conscious of the comparability of the data across cases. Direct comparisons may be

easier if similar data resources are considered for each individual case study. However, similar data resources may not be available or appropriate for each individual case study, so researchers may consciously choose to consider dissimilar data resources across the individual cases within comparative or collective case study research.

Application

Case study reports typically include a detailed description of the data resources used as evidence to inform the work. Some sample studies can provide illustrations.

One example is the research of Marjorie Padula and Dana Miller, who conducted a collective case study of four mothers who returned to school to pursue doctoral studies full time. Data resources for the case study included interviews, direct observations, and documents, with comparable information gathered from and about each mother. Interview data resources included an initial semistructured interview with each mother, field notes recorded during the interviews, a follow-up interview with each mother, and verbatim transcripts of each interview. Field notes from direct observations were recorded in formal classroom settings and in informal interactions during meals and other activities. Documents included graduate school applications and personal goal statements. Padula and Miller considered all interview transcripts and field notes, observational field notes, and documents during data analysis. The interview transcripts and field notes became the primary data resource for the case reports, and the observational field notes and documents provided contextual detail and corroborating evidence.

In other research, Michelle McGinn and David Boote conducted a case study of problem solving in a History of Mathematics course. The main data resource for the case study was a series of videotapes of joint problem-solving sessions that lasted from 1 to 2 hours. Supplementary data resources included partial transcripts from the videotapes, rough notes made by the problem solvers as they worked on the homework, the final submitted homework assignments (including the teaching assistant's feedback), field notes taken during lectures and tutorials associated with the course, the course textbook, and interviews with other

students and with the instructional team (a professor, a teaching assistant, and a frequent guest lecturer).

McGinn compared this case study of problem solving with two other case studies of problem solving conducted by individuals trained in mathematics and science. The other two cases involved problem solving by a design team in a software engineering firm and problem solving in a statistical consulting service where graduate students served as interns working under the supervision of a senior consultant. Whereas the main data resource for the case of problem solving in the mathematics course was the set of videotaped homework sessions, the main data resource for the other two case studies were observational field notes recorded as the researcher shadowed a lead team member engaged in collaborative problem solving. The data resources were selected specifically for each case study, with considerable divergence across the three case studies, yet despite these differences the three cases have sufficient similarity to allow productive comparisons.

Critical Summary

Case study research can draw from a range of historical and contemporary data resources. Researchers need to consciously consider multiple data resources, especially those that may contradict or complicate emerging understandings about a case. The extent and variety of data resources contribute to the quality and depth of the case study, whether it is an individual case study, a collective case study, or a comparative case study.

Michelle K. McGinn

See also Archival Records as Evidence; Direct Observation as Evidence; Documentation as Evidence; Field Notes; Interviews; Multiple Sources of Evidence; Questionnaires; Secondary Data as Primary; Triangulation

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DECENTERING TEXTS

The decentering of texts is a project of critical deconstruction of that which appears as text. It is the process of examining and analyzing a text from a place of otherness, marginalization, or decenteredness, in order to make visible or to reveal those frameworks or mainstream structures of influence that are the "center" of mainstream society.

Conceptual Overview and Discussion

Decentering is the process of rejecting a center, a privileged reference, or an absolute archia. Decentering is consistent with the rejection of the usefulness of mega-theories or all-encompassing descriptions of social processes and thus challenges sociology's desire to secure a fully centered human subject comfortably situated in a world of roles, statuses, norms, values, and structured social systems. This rejection was characterized by Jacques Derrida as the rupture in the history of structure that occurred in the late 19th and early 20th centuries, heralded by Friedrich Nietzsche's destruction of all axiological—ontological systems as well as Martin Heidegger's destruction of traditional metaphysics and ontotheology.

What is included in the concept of "text" being decentered includes the broadest use of the term possible. It may apply to any representation. This would include a written work, such as a book or poem; words of a song; written music; a film; or an e-mail conversation. Some scholars use paintings and pictures as texts that they analyze.

Implicitly assumed in this methodology is that meaning and meaning-making occur through expression in symbols or written text. Nothing is ever outside of a text or not capable of being represented by language. Decentering texts builds on Ferdinand de Saussure's structuralist theory of language. Challenged is the idea that readers, writers, and speakers occupy concrete places where thoughts, intentions, and meanings are organized in logical sequential and linear order clearly understandable to the listener or reader in a oneness of central meaning. It is the position of the decentering scholar that meaning-making of the speaker or writer is structured by language that does not permit all of the parties to the communication (whether it be speaker, writer, or listener or reader) to have full access to the meaning. Everyone has a subjective experience of articulation or, in other words, constructs the text differently. Thus, there is no center of meaning contained in a text.

It is in the process of decentering that various "-centrisms," such as ethnocentrism, anthropocentrism, phallocentrism, egocentrism, theocentrism, and logocentrism, are revealed. Rooted in post-structuralist theory, the methodology of decentering texts posits that texts need to be understood in their historical, political, and cultural places and times. Their author was working and experiencing meaning-making in a particular historical place and time that would have affected that author's meaning-making.

To *decenter* a text is to unsettle or make visible the familiar philosophical and political frameworks or mainstream notions of experience, human rights, white antiracism, human progress, scientific progress, modernity, the unity of scientific method, the desirability of universal knowledge claims, and other ideas central to philosophy. It is to take a perspective from elsewhere to reveal the frameworks that structure our thoughts and actions "here."

Decentering text is important, because the various centrisms are usually not maliciously motivated through prejudices of individuals by means of false beliefs and bad attitudes but through institutional, societal, and civilizational or philosophic forms of centrisms that are embedded and naturalized so as to often be assumed or not questioned. These forms are often the least visible in day-to-day life. Because of this, these centrisms have the most powerful effect on individuals. Decentering

text is a method of exposing and therefore questioning these dominant, often hegemonic, forms.

Decentering is used in feminist theorizing, standpoint, or phenomenology exercise. It is postpositivist.

The result of decentering is the creation of a dialogue to explore how multicultural global post-colonial institutions, cultures, and practices create opportunities to raise new questions, engage new dialogues and discussions on new topics and new conversational partners, and organize different kinds of social relations that might be likely or perhaps even possible. In this way, through the process of dialogue, decentering is an emancipatory social project promoting positive social structural change to decenter mainstream, white, middle-class patriarchal-dominant discourse and to empower marginalized "other" discourse.

Application

The methodology of decentering texts is used by a wide variety of sociology scholars. Examples from a variety of approaches have been chosen that comprise a list that is by no means exhaustive. These examples were chosen for the variety of places of "otherness" or decenter and the medium of texts used.

Uma Narayan and Sandra Harding compiled an edited text of decentering works in *Decentering the Center: Philosophy for a Multicultural, Postcolonial, and Feminist World.* This book comprises works of many authors focusing on feminism, cultural identity, development, and indigenous people. It is a good starting point for a large variety of scholarly work and case studies in this area.

An example of decentering film is Norman Denzin's deconstruction of the film *The Morning After*. In this work he shows how postmodern texts are frequently organized under the rubric of the classic morality tale. A subject is taken through the three steps of seduction, corruption, and redemption to illustrate how corrupt, unethical society has lost sight of traditional moral principles and values. Denzin used this film to illustrate how postmodern film resorts to the fictional morality of "one evil" or the traditional family setting underlying the postmodern society. Denzin deconstructed *The Morning After* to illustrate the patriarchal bias attached to the circumstances and situations of age, gender, class, race, and ethnicity. In this way

the embedded meanings of these identities are decentered from the biased lens of the white, middle-class, patriarchal perspective that perpetuates race, ethnicity, and gender stratification within the postmodern society.

Silvio Gaggi published a book of case studies on decentering the subject entitled From Text to Hypertext: Decentering the Subject in Fiction, Film, the Visual Arts, and Electronic Media. Through an examination of selected examples of visual art, literature, film, and electronic media he deconstructed and constructed the subject. Included is a consideration of electronic media and works of fiction in which readers themselves become decentered. The focus is on the subject or topic as the center. Subject is widely defined as that which is formed by language and representation as a construct that can be deconstructed. Through several chapters Gaggi covers visual representations in paintings and photography, beginning with Renaissance works, suggesting a coherent unified subject to modern and postmodern works that challenges this unified conception of subject. Several chapters use both literary examples and film that imply a fixed subject. However, through careful deconstruction, the author suggests elusiveness, flux, and transformation. Finally, new means of representation and communication, or *hypertext*, is considered. This is the most significant contribution of this work in that it considers the modern form of electronic communication and text.

Hypertexts are textual networks (or segments of text electronically linked to a network) organized around a work or theme in which the reader has freedom of movement within that network. These texts subvert the sense of a primary text or a center with a defined beginning, a dominant axis of movement, and a clear end. Hypertext emphasizes that the marginal has as much to offer as does the central and redefines the central by refusing to grant centrality to anything, to any lexia, for more than the time a gaze rests upon it.

An interesting example of decentering was undertaken by Elaine Power in the examination of the visual method of film, video, and photography in relation to food in her work, "De Centering the Text: Exploring the Potential for Visual Methods in the Sociology of Food." The image is argued to have become more powerful than the word and, more than ever, social agents and social researchers

know more than can be expressed in words. By examining these texts, sensual, nonrational, and material aspects of life can be uncovered. Food and the tactic processes of its preparation and consumption are well suited for this method of study. Three methods of gathering visual research discussed are (1) collaborating with research participants to produce visual images, (2) producing visual images, and (3) examining preexisting images.

Critical Summary

Decentering may result in the creation of sharp binaries about qualities, abilities, or locations of men, women, cultures, constructs, gender, or cultural identity that shapes the self-understanding and subjectivity of people who inhabit spaces. It may result in "essentialism" and reductionism by the comparison of a center to another decentered space and through this exercise the omission of many other multiple spaces.

Furthermore, through this process a seriously distorted representation of "others" or decentered spaces may occur. For instance, the depiction of Aboriginal people or third world people runs a risk of overgeneralization, creating or furthering stereotypes of these marginalized groups and seriously distorting their space if done in well-intentioned but misinformed manners.

Margot Hurlbert

See also Case Study Research in Feminism; Colonialism; Constructivism; Critical Discourse Analysis

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Decision Making Under Uncertainty

In decision making under uncertainty one studies how the single case (the decision maker, e.g., a radiologist) chooses between alternatives (e.g., presence or absence of a tumor on an X-ray) when the information presented is uncertain or incomplete. By evaluating two possible types of errors that the decision maker can make, false positives and false negatives, estimates of two independent characteristics of the decision maker are obtained. One characteristic is the decision maker's sensitivity, which is his or her ability to detect the presence of the "signal" (e.g., tumor). The second is the decision maker's response bias, which is his or her tendency to favor one of the possible alternatives (e.g., a higher willingness to err on the side of caution). In decision contexts where the two types of errors have differential payoffs or costs, or where the two alternatives are not equally likely to occur, the decision maker's decision process can be evaluated in more detail with the receiver operating characteristics (ROC) curve (also called the relative operating characteristics curve). Assessing these separate characteristics of the decision maker provides a more informative alternative to simply assessing his or her accuracy rate (e.g., overall percentage-correct decisions) and is one way of studying a single case, an individual, who is in the process of making a binary decision.

Conceptual Overview and Discussion

The simplest decision-making situation is when a decision maker must choose between two possible alternatives (e.g., disease or no disease). To assess the decision maker's sensitivity and response bias, the researcher uses two types of errors that the decision maker can make: a *false alarm* (false positive, or Type I error in statistical hypothesis testing) and a *miss* (false negative, or Type II error). Data for the estimates of these two probabilities are the relative frequencies of the decision maker's responses to each of the two alternative scenarios over repeated trials. Table 1 shows the possible situations that may arise. The stimulus presented to the decision maker is one of two, either containing a signal or not. The decision

Table I	Four possible outcomes in a two-choice
	decision task

Stimulus presented	Response	onse made	
	Noise	Signal	
No signal	Correct rejection .60	False alarm .40	
Signal	Miss .15	Hit .85	

Note: Numbers are example values used in the text for a numerical example.

maker can make one of two responses, either signal present or not. This creates four possible outcomes, but note that because for a given stimulus the decision maker must give one of the two responses the probabilities within each row must add up to 1.0.

Theoretical Basis: Signal Detection Theory

The theoretical basis for obtaining estimates of the decision maker's sensitivity and response bias is known as signal detection theory (SDT). SDT was developed and introduced into psychological research in the 1950s and is a direct application of statistical hypothesis testing to the tasks of detecting "signals" in noisy stimuli and of discriminating between two confusable stimuli. As in statistical hypothesis testing, there are two distributions, the noise-alone (analogous to the null) distribution and the signal + noise (alternative) distribution (see Figure 1). In SDT, the two distributions represent the probabilities of the various strength of evidence that the decision maker has for each of the two possible situations. The two distributions overlap, and there is one point, the decision criterion, along the evidence-strength axis that represents the decision maker's critical decision point for his or her decision rule. The rule applies on each trial and is stated thus: If the evidence received is stronger than the decision criterion, then respond "signal"; if the evidence is weaker, then respond "noise." The evidence, however, can come from either of the two situations. So, if the strength of evidence falls above the criterion but was from the noise stimulus, f_n distribution, then the decision maker

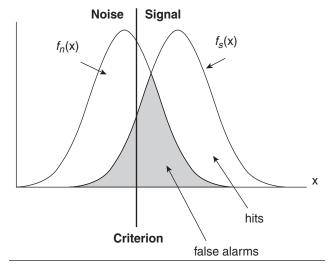


Figure I Probability distributions representing the strength of evidence for each of two stimuli; the criterion demarcates the four areas under these curves that correspond to the four proportions in Table I

has made an error of the false positive type (a false alarm). Alternatively, if it had in fact been from the signal distribution, f_s , then the decision maker's response was correct and is referred to as a *hit*. The areas under the two curves to the right of the criterion are estimated by the proportions of P(hit) and P(false alarm) in Table 1.

Different assumptions can be made about the shapes of these distributions in SDT. The most common assumptions are that both distributions are normal with the same variances (equal to 1.0). In many, though certainly not all, empirical settings these assumptions are reasonable and empirically supported. It is also assumed, without any loss of generality, that the noise-alone distribution is centered (has its mean) at zero. Finally, regarding the decision criterion, it is assumed that its placement is under the decision maker's control and does not change over the course of the experiment (unless it is deliberately manipulated by the researcher—see more in "ROC Curves" section).

Estimating a Decision Maker's Sensitivity

The classic measure of the decision maker's sensitivity is d'. Under the assumptions that the distributions are normal with equal variances, d' is defined as the difference in the z transforms of

the proportion of hits, p(hit), and of false alarms, p(fa):

$$d' = z(hit) - z(fa)$$
.

Here, z(hit) is the z value corresponding to the probability p(hit) in the upper tail of the standard normal distribution; similarly, z(fa) is the z value for p(fa). Using the example proportions in Table 1, z(hit) is the z value corresponding to a probability of 0.85 under the standard normal curve, which is 1.04; similarly, z(fa) is the z value for 0.40, which is -0.25. So, for this example, d' = 1.04 - (-0.25) = 1.29. If the two distributions overlap completely, the decision maker cannot discriminate between the two stimuli, and d' is zero. To the extent that the two distributions are separated, the two stimuli are very distinct, and d'will be large. It is also informative to note that the decision criterion point is simply estimated by z(fa), or 0.25 in the numerical example, if the mean of the noise distribution is (arbitrarily) placed at zero.

Estimating a Decision Maker's Response "Bias"

An unbiased decision maker does not favor one response over the other. In this case, the frequencies of the two types of errors (i.e., false alarms and misses) are equal, and this occurs at the point along the strength-of-evidence axis where the two distributions cross each other. Conversely, to the extent that the decision maker's two error rates differ, response bias is indicated.

To quantify the amount of a decision maker's response bias, two measures have been introduced, and both are related to the criterion point of the decision maker's decision rule. One measure, c, is simply the distance of the decision criterion to the cross-over point where c is set to zero for the unbiased decision maker. For distributions with equal variances, this cross-over point is estimated by d'/2 (e.g., at 1.29 / 2 = 0.65), so with z(fa) = 0.40 the response bias c is 0.65 - 0.40 = -0.25. A negative c value occurring to the left of the cross-over point indicates that the decision maker favors the "signal" response. This is often referred to as a *liberal bias*. A positive c value indicates a *conservative bias*.

The second response bias measure is defined in terms of the ratio of probabilities of making the "signal" response relative to the "noise" responses (this is called the *likelihood ratio* and is symbolized

by β) at the criterion point of the decision maker's decision rule:

$$\beta = f_s(\text{criterion}) / f_n(\text{criterion}),$$

and it can be easily estimated by

$$p(hit)[1 - p(hit)] / p(fa)[1 - p(fa)].$$

In the numerical example used here, this ratio is (.85)(.15) / (.4)(.6) = .53. Equal probabilities of making each type of error that is characteristic of an unbiased decision maker will give a β value equal to 1. A β value greater than 1 indicates that f_s is greater than f_n at the criterion point and thus that the decision maker has a preference for "noise" responses and a conservative bias, whereas a β value smaller than 1 (but always remaining positive) indicates a preference for responding "signal" and a liberal bias.

ROC Curves

The decision process in this simple choice task can be evaluated in more detail by the ROC curve. Empirical observations have found that the decision criterion can change for the decision maker across different decision contexts, even with the same stimuli. For example, if two stimuli have different relative frequencies of occurrence (referred to as *base rates*), the decision maker can shift his or her decision criterion to favor the more frequently presented stimulus. Also, if one type of error is more costly than the other—for example, to miss a tumor on an X-ray is more serious than to make a false alarm—the decision maker is wise to shift her or his criterion to reflect these differential costs.

The ROC curve summarizes the decision maker's decision process by plotting the probability of hits as a function of the probability of false alarms across a series of varying, experimentally manipulated decision contexts (base rates or costs/payoffs) for the same pair of stimuli. (It should be added that another way of obtaining an ROC curve, without manipulating the decision context, is to ask the decision maker to make a confidence rating about each decision on a simple confidence rating scale; this produces two or more pairs of hit and false alarm probabilities that are required to plot the ROC "curve.") The ROC curve thus appears in a *unit square* (from 0.0 to 1.0 on both axes). Most typically it is a concave function (with a negatively

accelerated slope) in the triangular area above the zero-to-one positive diagonal which itself represents chance performance (50–50 accuracy on both stimuli). The curve is more concave if the decision maker's sensitivity (the separation of the two overlapping distributions) is large, and it is symmetric around the negative diagonal if the variances of the two distributions are equal. Analyses of the ROC curve (e.g., converting to z plots and examining the linearity, slope, and intercept) allow for some additional characteristics of the decision maker to be illuminated; for example, one can empirically assess the relative variability in the amount of "evidence" contained in each of the two stimuli (i.e., assess the equal variances assumption).

Variations on the Classic Sensitivity and Response Bias Measures and Some Related Measures of Decision-Making Accuracy

Other measures of sensitivity and response bias have been proposed. Some of the most common alternatives are sometimes called *nonparametric* because they are based on the ROC curve and make no distributional assumptions. For example, sensitivity can be measured by A' (area under the ROC curve) or d'_e (intersection of the ROC curve with the negative diagonal). A nonparametric response bias measure is B'_H , which William Donaldson improved and introduced as the B'_D measure. Donaldson also reviewed and compared some of the other nonparametric measures and provided a historical overview of the development of this approach.

Two other measures of a decision maker's performance that are related to his or her general accuracy are (1) the *positive predictive value*, which is the ratio of hits (true positives) relative to all signal responses made by the decision maker (hits plus false alarms) and (2) *sensitivity*, defined here as the proportion of hits out of all trials with the signal presented (i.e., hits plus misses), a measure that is analogous to statistical power in statistical hypothesis testing.

Application

John Swets, one of the original developers of SDT and its applications in psychology, has collected a wide range of examples in which SDT and ROC analysis has been used, including areas in clinical radiology, information retrieval, weather forecasting,

polygraph lie detection, aptitude testing, survey research, and automated warning systems. Within psychology, SDT has been used frequently in psychophysics and perception (auditory, visual, pain) and for studying memory in cognitive psychology. In the area of recognition memory, for example, a research participant is shown a list of items (typically words) and then at some later time is asked whether he or she has seen the items as they are presented again, this time mixed with previously unseen items. The "old," previously presented items are analogous to the signal stimuli, and the "new" items are the noise stimuli. The person's recognition memory is then analyzed for his or her ability to recognize old items in light of his or her response bias tendencies, typically across different experimental conditions of particular interest to the memory researcher (e.g., varying the list lengths, the time intervals that the items need to be remembered, different categories of items). Several researchers have formally studied recognition memory with this approach, taking it in several directions. John Wixted discussed the more recent developments in his 2007 article.

Applications in several other fields have also been suggested. For example, W. Wade Martin and Marta Rovira suggested how SDT can be used in social psychology and offered several examples. SDT has also been extended to situations in which the decision maker must discriminate among three or more alternatives varying along one dimension (e.g., loudness of tones) and to discrimination among stimuli that differ along multiple dimensions (e.g., both loudness and pitch of tones).

Critical Summary

The use of SDT and its measures of sensitivity and response bias offer a rigorous, theoretically based approach to case study. The method of analysis provides an enhanced description of the decision maker when the decision or judgment must be based on uncertain or incomplete information, by providing insight into two components of the decision process: the decision maker's ability to distinguish between the two choices versus his or her tendency to respond in a biased way. It is a simple and versatile method and can be applied in a wide variety of settings. In addition to using it for studying the detection accuracy of a decision maker,

it is readily adaptable to studies in which two (or more) confusable stimuli need to be discriminated or identified.

Because the sensitivity and response bias measures, as well as the ROC curve, are all based on proportions (of hits and false alarms), it is important to collect enough data to obtain reliable and stable estimates of these proportions (typically no fewer than 25 trials with each stimulus, preferably 100 or more trials per stimulus). This is typically not an obstacle, however. Furthermore, although estimates are obtained for a single decision maker, once obtained they can be used to make comparisons across decision makers, or they may be combined into group analyses for comparisons across experimental conditions.

Helena Kadlec

See also Case Study Research in Psychology; Cognitive Biases; Cognitive Mapping; Explanatory Case Study; Mental Framework; Quantitative Analysis in Case Study; Repeated Observations; Single-Case Designs

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DECONSTRUCTION

Deconstruction enables an active questioning of the foundational concepts and representations that we use in our studies by uncovering their factual nature. The term *deconstruction* refers to the search for new meanings, thoughts, and perspectives. Indeed, the vast majority of case studies are constructed around various types of narratives that are plotted around oppositions, including change/resistance to change, organization/dysfunctions, and so on, and with characters behaving according to their pure roles, such as manager/employee, teacher/learner, and so on. Deconstruction is the dismantling of this conceptual arrangement by way of welcoming alternative insights that challenge the presuppositions of a given text's creation.

Conceptual Overview and Discussion

The term *deconstruction* was theorized by the French philosopher Jacques Derrida. The term has had wide-ranging philosophical implications; this entry emphasizes its implications for case study research. Although Derrida never explicitly formulated a definitive definition of deconstruction (which would be contrary to his approach), he acknowledged four phrases that highlight its various facets.

The first of these phrases is referred to as "deconstruction is America." Derrida's deconstruction was first debated in North American universities. In its early years, it was used as a method for literary criticism. Deconstruction does indeed apply to texts, but articles, theories, discourses, case studies, accounts, and even practices, as well as decisions, can be considered as texts. As a literary method, a deconstructive analysis first looks for the binary oppositions that organize a given text (e.g., communication/noise, change/ resistance to change). It then underlines how the first term in the binary opposition is considered as positive whereas the second is devalued and parasitic to the first. Yet a close scrutiny to both concepts making up the binary opposition would reveal that each is in fact contaminated by the other. The deconstructive analysis implies that both terms embody and thus imply the other. The binary opposition appears to be too simple to grasp the studied phenomenon. A deconstructive analysis can also involve a search for what is not stated in the text, such as what may be presumed by the text. If such presuppositions are rendered explicit, the text is thus repainted with another meaning. Other approaches become possible. The perspectives, the plots, the frames, the fringes are open to be rebuilt; new insights and vocabularies are required to retell the story.

The second phrase acknowledges that "deconstruction means speaking more than one language." Although unaware, we always draw on the same language to speak of a phenomenon; this means we use the same words, variables, metaphors, logics, and so on. Drawing on other languages to organize our theories would open the way for new insights. Here a case study, with its rich and thick descriptions, as well as its prescription for multiple sources of evidence, can be of much help. As a result, the deconstructionist looks closely at and pays special attention to phrases uttered by usually silenced individuals, including frontline workers, people with learning disabilities, unemployed people, and elderly residents. She may even try to voice their accounts, through lending them her voice, thus enabling them to speak through her. Through careful listening of previously silenced individuals, the deconstructionist strives to disrupt her own former insights. By taking seriously the words and worlds of the previously silenced, the deconstructionist seeks to build or craft an alternative language to speak of a given phenomenon. Because she is cautious about processes in which privileging occurs, the deconstructionist does not situate her language as superior but does emphasize the need for multivocality and multiple languages.

Derrida's third phrase is "deconstruction is what is happening, to have something to happen." Contrary to oft-cited criticisms of deconstruction, deconstruction does not imply destruction. Deconstruction is less about knocking down a concept or a text than about affirming something different, about enabling the arising of new thoughts. By highlighting various frames and tracks that have previously acted in constraining our thoughts, concepts, discourses, and practices, deconstruction calls for more demanding and more promising ones and proposes new conceptions to the academic arena.

The fourth and last phrase acknowledged by Derrida is "deconstruction is the impossible." Deconstruction does not look for the one conception that would rule out all the others; it does not

seek out the one best language. Deconstruction refers to a constant striving for an inaccessible alternative. This is the quest for the impossible, for what will never definitively be grasped, that which puts thought into motion. For example, decisions may once have been thought to be encapsulated into the decision theory framework. Other frameworks were then proposed that criticized the first and added social, organizational, or political explanations. Derrida would argue that no such decision framework can grasp the concept of decision because for a decision to be considered a pure decision would imply a break from any framework. A pure decision sets itself out of the course of any given story. Of course, this kind of decision would at first seem to be impossible. But this impossible is what thought and action are striving for. This insight underlines the limits of all the other frameworks.

Alongside deconstruction and of much interest for case study research is Derrida's questioning of authorship (intertextuality and iterability), the organization of texts (decentering texts), the central place given to speech (logocentrism), and his criticism of phenomenology (difference).

Application

Case study research can draw on deconstructive analysis in various ways. The most common way is to use the case study as providing the text for deconstruction. Examples include studies that have deconstructed charismatic management; organizational culture; company official texts; a maternity leave policy; business ethics; or management devices such as total quality management, human resource management, and so on.

Another manner of using deconstructive analysis in case study research is to draw on a case study for the constructive and affirmative facet of the deconstruction. For example, after having uncovered the foundations and questioned concepts such as decision making, corporate social responsibility, tacit knowledge, or evidence-based medicine, one can use a case study to search for and develop alternative languages that will aid in discussing or proposing new insights on the subject.

Finally, deconstruction may be one among other strategies used in a case study. For example,

in their in-depth study of a laboratory, Bruno Latour and Steve Woolgar deconstruct the opposition between the original and the copy alongside many other moves.

David M. Boje gives an example of the deconstructing strategies by applying them to the grand narrative of Marxism. He first notes that the discourse is based on a binary opposition between capital and labor and documents how the first is said to dominate the other. He then tells the other side of the story, finding several examples and processes in which labor dominates capital. He does not oppose the Marxist labor process theory but shows how the overall plot (the greedy accumulation of capital deskills the workers in order to capture always more of their surpluses) does not grasp the whole story. We need to see it from several angles, listening to many voices. He ends up with a far more complex story, in which both capital and labor haunt each other, and in which each agent has multiple selves and agency.

Another example is Jean-Luc Moriceau's "Faceless Figures: Is a Socially Responsible Decision Possible?" In this study he deconstructs the concept of corporate social responsibility. The analysis reveals that the concept of corporate social responsibility appears far less pure than initially presupposed: Despite its claims, the social dimension is shown as being contaminated by the economical calculus, the corporate level as shielding the decision makers, the actual beneficiaries as being replaced by mere figures of stakeholders. The absence of faces is also remarked on. This study thus proposes a look at the institutionalization of corporate social responsibility, in its transformation from initially being an ethical concern to a focus on organizations striving to achieve good scores from rating agencies. The previously marginalized inscription of responsibility into scores comes to assume a central importance. This reversal of hierarchy suggests a new insight into the practices and discourses of corporate social responsibility while putting to the front the adversary concept of the faceless figure.

Critical Summary

Deconstruction is a very powerful strategy that seeks to propose new insights, especially on issues that have been already documented, through exposing the taken-for-granted. A case study may be a useful companion to deconstruction for grounding and illustrating often-abstract and implicit argumentations. Although deconstruction is often critiqued for offering mere criticism, a successful deconstructive analysis will offer a new panorama of insights into an existing text or practice. A study that would end up with a very common and straightforward critique could not claim to be deconstructionist.

Derrida's philosophical concepts as well as his numerous books require a close and are a challenging read. Deconstructionists' case studies are likely to be accepted in critique journals rather than mainstream journals.

Jean-Luc Moriceau

See also Conceptual Argument; Critical Discourse Analysis; Decentering Texts; Intertextuality; Logocentrism; Textual Analysis; Writing and Difference

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DEDUCTIVE—NOMOLOGICAL MODEL OF EXPLANATION

The deductive–nomological model is a widely accepted account of the nature of scientific explanation. It is

often called the *covering law model* (CLM), or the *Hempel–Oppenheim model*. In an explanation under the deductive–nomological model, the *explicandum* is some phenomenon requiring explanation. The *explicans* of the *explicandum* removes the puzzling or problematic character of the *explicandum* by showing the phenomenon to be a particular case of a known general law. In other words, according to the CLM, explanation orders experience by bringing particular instances under general principles. The more particular instances can be brought under a more general principle, the better the explanation. Explanation progresses from the less general to the more general.

In a CLM explanation, the *explicandum* follows logically from the *explicans*. If, for example, a pencil is dropped and falls, the explanation, according to the CLM, is as follows:

Explicandum: Observation: Pencil falls. Explicans: Initial conditions: Pencil dropped. Law(s): Law of Gravity

The falling of the pencil is thus explained by being subsumed under the Law of Gravity.

Criticism

This model of explanation has, from early on, been subjected to serious criticisms by both philosophers of science and social scientists. According to physicist and philosopher of science Norman Campbell, the belief that it is the aim of science to bring all particular instances under one extremely general and universal law neglects the most important part of science and fails completely to understand its aims and development. Even if this were possible, Campbell notes, the resulting explanation would not be what science, developing the tendencies of common sense, demands. Sociologist Phillip Gorski observes that the model is inadequate considering that sociology has not as yet produced any such laws, and political scientist Samuel H. Beer asserts that the model has not led to success and that attempting to follow it would stand in the way of any social scientist who took it seriously.

Curious Status in the Social Sciences

The CLM enjoys a curious status in the social sciences. On the one hand, it is still widely believed to

be a correct account of what a scientific explanation should be like. It continues to be widely presented as such in the social science methodology textbook literature. On the other hand, few if any explanations in the social sciences come close to fitting the model. This view of explanation would appear to be particularly distant from case study research, with its focus on complex situations. Even those social scientists who subscribe to the CLM usually admit that there are, as yet, no universal laws in the social sciences or that there are only a few that might arguably qualify as such. Duverger's Law and Michels's Iron Law of Oligarchy are among those that might be nominated. Yet even they are not universal laws in the sense of the CLM. Few would argue that the deductive-nomological model characterizes the explanations extant in the social sciences.

Some social scientists—for example, Robert Merton—argue that the absence of universal laws in the social sciences is due to the fact that they are not yet mature sciences. When they have reached maturity, so it is implied, their explanations will conform to the CLM. In the meantime, it is acceptable for social scientists to make use of what Merton calls "theories of the middle range." Yet, as Gorski points out, such generalizations are not the universal laws presupposed under the CLM. In recent years, several writers have drawn attention to another problematic aspect of the deductive–nomological model, namely, that it mistakenly assumes covariance or regularity implies causality.

Popper's Account of Deductive Explanation

Karl Popper's account of deductive explanation is sometimes mistakenly identified with the CLM, which is sometimes referred to as the *Popper–Hempel model*. Like the CLM, in Popper's account of a scientific explanation the *explicans* of the *explicandum* consists of laws and initial conditions, and the *explicandum* must follow logically from the *explicans*. However, although this is a necessary condition for Popper it is not a sufficient condition. First of all, Popper agrees with those critics of the CLM who point out that correlation or covariance does not entail causation. Something must drive the explanation, must account for *why* the *explicandum* necessarily follows from the *explicans*. An *explicans* may eliminate the problematic character

of a phenomenon in various ways. Subsuming the phenomenon under a general law, as prescribed by the CLM, is one possibility. However, even in such cases the cause of an observed regularity may be unknown and requiring explanation. Moreover, the problematic character of a phenomenon may also be removed by repairing or filling out initial conditions, or by reconceptualizing the situation. In any case, according to Popper, the explicans must be rich in content and must have a variety of independently testable consequences, which are different from the explicandum. Popper's account of deductive explanation is thus, unlike the CLM, congenial to case study research. It is precisely through correction or reconceptualization of the situation (initial conditions) that explanation is provided of why a particular case deviates from what had been expected.

Fred Eidlin

See also Explanation Building; Explanatory Case Study; Falsification; Middle-Range Theory; Philosophy of Science; Probabilistic Explanation

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DEPTH OF DATA

Depth of data refers to the detail, richness, comprehensiveness, and explanative power of the data

supporting a case study. Increased depth of data positively affects the perceived credibility and applicability (or generalizability) of a case study. At the same time, this increased depth can also raise ethical challenges regarding the protection of privacy and confidentiality.

Conceptual Overview and Discussion

Depth and Breadth of Data

Characteristically, case study research draws from an extensive and varied array of data resources to bring depth of understanding about a well-defined, narrowly focused, and clearly bounded case. Researchers may face a trade-off between depth and breadth in gathering and presenting data for a case study. Although it is essential for case study researchers to seek out extensive evidence to develop a comprehensive understanding of the case, choices must be made about how much of that evidence can be presented directly in any case study report. Researchers must consider publishers' requirements and readers' needs in judging the amount and depth of data that can be presented.

The challenges of gathering and presenting sufficient depth of data in a case study report are particularly acute for collective and comparative case study research, where there is a need to consider information from multiple cases. It is not uncommon for cross-case studies to be criticized as thin, reflecting insufficient depth about any individual case. At the same time, collective and comparative case studies are valuable because the emphasis on similarities and differences across cases can provide breadth of understanding about the phenomenon of interest that extends beyond one individual case.

Depth of Data Affects Credibility and Applicability

Case study researchers establish depth of data through triangulation and thick description, both strategies that contribute to credibility of data.

Through *triangulation*, comparing and contrasting across multiple data resources, case study researchers uncover consistencies and inconsistencies, thereby providing evidence from multiple perspectives and incorporating assessments about the veracity of the evidence presented. In this way, researchers can build robust understandings about

the case under investigation that are likely to be judged as credible.

Case study reports typically include *thick description*; that is, they go beyond mere facts and surface features of the case to include details, context, circumstances, meanings, significance, motivations, emotions, social relations, history, and other such descriptive and interpretive elements of the case. Thick description that is well supported by evidence will be perceived as credible. This level of detail brings the case to life for readers so that they are more likely to make positive judgments about the credibility of the case and its potential applicability in other contexts.

Thick description in a case study report provides extensive information that readers can use to understand the case. At the same time, this thick description provides an evidence base for readers to make comparisons with other situations and make predictions about how well the conclusions about the reported case might apply in these new situations. Without thick description, readers are left with insufficient information to understand the reported case or to apply that case to other situations, thereby substantively undermining the value of the case study.

Depth of Data Affects Privacy and Confidentiality

The depth of data that case study researchers seek in their efforts to understand a case leads to highly identifiable research records. Case study researchers need to seek permission or consent from relevant people associated with the case in order to access the extensive data required to generate understandings about the case. Beyond initial data access, researchers also need to think carefully about how to present this depth of data without sacrificing privacy and confidentiality commitments to the people associated with the case.

Dena Davis describes the paradox of writing case studies in the field of bioethics. As she indicates, the kinds of details that make case studies identifiable are frequently the very same details that make those case studies informative and worthwhile. Disguising details about age, gender, nationality, and other important biographical details to protect identities in case studies may confound key issues in the case and undermine

possibilities for readers to develop their own understandings that go beyond the author's original interpretation.

Researchers may need to consult with participants who could be identified in a case study or with stakeholders associated with the place, organization, or object under investigation to inform their choices about the appropriate balance between identifying details and confidentiality provisions in a specific case. In some situations, it may be appropriate to provide clearly identifiable information as part of the case study, as is common in journalism, oral history, public policy research, and other forms of scholarship. In other situations, it may be appropriate to forego certain statements or conclusions in case study research when those claims can be substantiated only with identifying details that would lead to risks or harms to someone associated with the case, and the potential benefits that could accrue from including those details provide insufficient justification for that level of risk or harm.

Critical Summary

Case study researchers strive for depth of data to generate substantive evidence and rich understandings about the cases they study. The depth of data in a given research study may need to be counterbalanced with the desired breadth of data, especially for comparative and collective case studies. Triangulation and thick description are two important considerations in achieving depth of data. Increased depth of data contributes to the resulting credibility of a case study and may affect its applicability (or generalizability). However, there are ethical challenges associated with increasing depth of data in case study research. Site access stipulations, research permissions, and consent processes affect researchers' access to data, and privacy and confidentiality provisions influence researchers' decisions about how to protect or divulge identifying information that contributes to the depth of data.

Michelle K. McGinn

See also Anonymity and Confidentiality; Credibility; Data Resources; Ethics; Generalizability; Limited-Depth Case Study; Multiple Sources of Evidence; Thick Description; Triangulation

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DESCRIPTIVE CASE STUDY

A descriptive case study is one that is focused and detailed, in which propositions and questions about a phenomenon are carefully scrutinized and articulated at the outset. This articulation of what is already known about the phenomenon is called a *descriptive theory*. It helps to specify the boundaries of the case, and it contributes significantly to the rigor of the finished case study. The power and promise of a descriptive case study lie in its potential for mining for abstract interpretations of data and theory development.

Conceptual Overview and Discussion

The main goal of the descriptive case study is to assess a sample in detail and in depth, based on an articulation of a descriptive theory. This theory must respect the depth and scope of the case under study, which is conveyed through robust propositions and questions. If a descriptive theory cannot be developed easily before a case study, then the researcher may want to consider whether the case is more of an exploratory case study.

Descriptive studies seek to reveal patterns and connections, in relation to theoretical constructs, in order to advance theory development. Some researchers refer to descriptive case studies as *intensive* or *focused* case studies; these are semantically helpful terms for directing the researcher's desired level of intellectual penetration of the phenomenon.

To some degree, from the perspective of positivist research, all types of case studies can overlap, because they have the following similar aims: (a) to

depict the relatively incontrovertible details of the people, place, events, transactions, and processes of the case—a description that others would likely make if they had been there; (b) to give a clear picture of what is happening, without making judgments—an organized and coherent presentation of the phenomenon; and (c) to develop and expand on relevant concepts. A descriptive case study distinguishes itself from other types of case studies by its preoccupation with articulating a descriptive theory. In so doing, robust concepts emerge, conflate, and expand to inform, confirm, refute, and further shape a priori theories. Most important, descriptive case studies allow the reader to see the case through the theory-driven lens of the researchers. Studies are considered to be descriptive cases if there are no analytic comparisons between groups and no attempts to make causal statements or to describe unexplored territory.

The findings from descriptive case studies are generalizable to theoretical propositions. At the same time, as with expert knowledge-makers across methodologies, descriptive case study researchers thoughtfully consider whether their findings have implications elsewhere. Teasing out such implications, in part by examining rival interpretations, helps other researchers posit better questions, inspect data more closely, entertain new possibilities, and conceive the once inconceivable.

Application

Robert Yin, an expert on case study design, articulated the critical need to establish a protocol before data collection. Such a protocol, in the context of a descriptive case study, would include the following: an overview of the case study project (objectives, issues, topics); field procedures; case study questions clearly linked and informed by propositions from the literature and a guide for how the case will be reported (outline, format for the narrative, etc.).

Agreed-upon common sources of evidence in case studies are documents, interviews, direct observations, participant observations, and physical artifacts. Not all of these sources are relevant for all cases, because each case will present different opportunities for data collection. As discovery occurs, it is critical to use rival hypotheses and theories to enhance the robustness of the study.

Eminent case study researcher Robert Stake pointed out that case study research is largely reflective work that requires a commitment to pondering the impressions and deliberating recollections, but not necessarily following the conceptualizations of others. He noted that local, foreshadowed, and consequential meanings are all important. Ultimately, the researcher decides, through both intuitive and analytical processes, which type of meaning will be privileged and the extent to which other types of meaning will unobtrusively form the backdrop.

One example of a descriptive case study is the one conducted by John Pyecha, who effectively used descriptive theory in the form of idealized expert-developed scenarios about a hotly debated issue in special education (inclusion vs. special classes). The researchers used their idealized scenarios (generated before data collection) to match up with activities conducted by each state that ascribed to one of the two philosophies. Knowledge about the phenomenon allowed the researcher to predict patterns that were eventually confirmed through a matching of the idealized scenarios with the activities of the state. Data that did not fit under the original scenarios were still collected for later analysis. The pristine way in which the case study was formulated made for crisp boundaries for data collection, an often-troublesome challenge for case study researchers.

Critical Summary

Making use of a robust descriptive theory enables the descriptive case study researcher to penetrate the essential understandings of the case and offer up for scrutiny a case for informing theory development, in addition to potentially providing a valuable addition to the case study databank for future researchers.

Ruthanne Tobin

See also Explanatory Case Study; Exploratory Case Study; Rival Explanations

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DEVIANT CASE ANALYSIS

Deviant case analysis is a methodological approach that is an outcome of a researcher's sampling decisions and treatment of data. Sometimes referred to as *negative case analysis*, the approach is based on the view that any findings generated from data should be able to explain a wide range of observations. This provides both the opportunity for finding novel theoretical relationships as well as confidence that a study has been conducted in a rigorous way.

Conceptual Overview and Discussion

The idea that deviant cases are important to carefully examine is embedded in many of the qualitative approaches that are widely used in case study research. One of the central features of grounded theory is the constant comparative method of data analysis, the process by which theoretical ideas are revised and redesigned as data are compared with them. In this way, data are organized and compared with the theoretical relationships contained in the data, being constantly adjusted for new data that are collected. If these new data do not conform to the theoretical relationships present in earlier data, then new relationships are developed that account for all available data. The result is a condition of theoretical saturation, the signal that theory has been developed using the full range of data collected. The deviant or negative case study therefore provides the opportunity for a more robust theory, one that explains the unexpected or atypical as well as it explains the expected or typical.

Choosing to include deviant cases in research is therefore a matter of sampling, something that matters to all qualitative researchers. David Silverman provides a comprehensive treatment of the decisions that go into selecting a case. He suggests that although some researchers may be content to provide a purely descriptive account of a phenomenon with no regard for generalizability, most are not. Instead, a hallmark of good qualitative research is that it produces explanations, for example, why something happens or under what conditions it happens. These types of explanations lend themselves to discussions of generalizability, usually couched in terms of transferability of findings or resonance of findings in contexts other than the one researched. As such, there is an issue of representativeness embedded in all qualitative or case study research that sampling can, to a certain extent, address.

Application

Sampling in qualitative research is typically explained in theoretical or purposive terms; in other words, what should determine the choice to study a particular case or set of respondents? Purposive sampling is guided by the desire to have a case illustrate phenomena of interest. This requires careful thought on the part of the researcher to determine the people from whom and places where useful data can be obtained. When these decisions are theoretically determined, the term theoretical sampling is used. It is primarily concerned with choosing a sample that will contain data suitable for answering research questions and allowing for the construction of convincing interpretations of these data. At some level, researchers are advised to choose any research setting that is easily accessible and will provide the data needed for their study. It is at this point that researchers should attempt to include deviant cases in their research, lest they select only cases that conform to their a priori expectations. By actively seeking out deviant or negative cases, researchers increase the likelihood of creating a robust set of findings that have relevance in a wide range of contexts.

Once sampling decisions have been made and data collection is underway, embracing deviant or negative cases and incorporating them into the interpretation of data is an ideal way to increase the trustworthiness of research findings. This concern is expressed by all qualitative researchers in one way or another, because findings in which little confidence can be placed are likely to be dismissed as insignificant or flawed. Silverman rather stridently

asserts the need for the findings of qualitative research to have a ring of truth about them. To defend against anecdotalism or claims based only on data that confirms initial ideas, researchers should clearly identify contrary cases and show how their findings are based on detailed analysis of *all* data rather than some well-chosen examples. Using deviant cases, processes or outcomes revealed in the data that are in some way atypical gives credence to research findings by showing that every piece of data is accounted for.

Once data collection and analysis are complete, researchers are left with the job of disseminating their findings. The peer-reviewed journal is the most common place for this to occur, with articles being published that make some kind of contribution to knowledge in a particular discipline. The challenge for authors is how to present in these outlets, which have a relatively small amount of space, analytical explanations based on large bodies of qualitative data. Jennifer Mason presents this as a challenge of making arguments: the construction of a perspective, interpretation, way of thinking, or way of viewing the world. The goal is to make these arguments convincing, which comes down to engaging readers and providing them the proof they need to accept the arguments presented. Findings will attract even greater attention when generalizability or transferability are addressed, which deviant case analysis can help accomplish. The means for doing this is in showing how the explanations and arguments presented have been subject to careful scrutiny, especially from alternative explanations that may be present in deviant cases or negative instances. As previously discussed, this should be embedded in the design of research (what gets studied) and in the analysis of data (how interpretations are formed). The deviant case plays a special role here, allowing the researcher the opportunity to show how data that run counter to the theoretical explanations being developed are incorporated into research findings. In this way, a study's findings can be presented in a highly convincing manner, based on sound methodological principles that demonstrate a systematic and thorough approach to data collection and analysis, a set of conclusions or interpretations that logically flow from that analysis, and the rigor of interpretation that comes from putting it to the test of deviant or negative cases.

Critical Summary

Deviant case analysis is an important element of qualitative research in terms of its ability to defend against anecdotalism and provide the opportunity for wider theoretical resonance of findings. The idea of a deviant or negative case is at the heart of testing the limits of extant theory, in particular as it relates to the presence of and relationship between theoretical constructs, and the generalizability of theory itself. There is something intrinsically interesting about analyzing a case in which something predicted to occur does not. Examining only cases in which expected results occurs serves to limit the contribution to knowledge that a study can make, arguably the epistemological basis of scholarly research. The deviant case can be incorporated by design as a sampling strategy, occur naturally as counterintuitive data are collected, and be used to demonstrate trustworthiness of findings. Using deviant or negative cases allows for the possibility of identifying concepts that are present but have no effect on what is being studied as well as pointing to ways in which concepts can be introduced or rearranged to clarify or extend existing theories.

David Wicks

See also Grounded Theory; Reliability; Validity

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DIAGNOSTIC CASE STUDY RESEARCH

Interest in diagnosis can be traced back several thousand years. Ancient Egyptian observers, for

example, provided diagnostic descriptions for, among other things, epilepsy, alcoholism, and mental retardation. These early attempts at classification were undoubtedly based on intensive investigations of a single person. Today, these intense investigations of single organisms are called *case studies*. Whereas the general scope of inquiry for case studies is, at least theoretically, limited only by the creativity of the researcher and the complexity of the organism that is being studied, diagnostic case studies have a much narrower focus on disease. More specifically, *diagnostic case studies* are case studies that focus exclusively on the identification, classification, and understanding of disease.

Conceptual Overview and Discussion

Diagnostic case studies focus their inquiries at the level of the individual and involve a systematic search for pathology of some sort. The primary goal of diagnostic case studies is classification. Scientific classification requires that a given phenomenon—in this case, a disease—be identifiable in a manner that distinguishes it from other phenomena. By identifying distinguishable disease entities researchers who perform diagnostic case studies contribute to a body of science that allows other researchers and practicing clinicians to communicate more effectively. This enhanced communication, in turn, fosters a deeper understanding of a disorder so that practicing clinicians can more effectively assess and treat patients.

Beyond an intensive focus on the individual, the essential features of diagnostic case studies are (a) systematic assessment, (b) repeated measurement across time, (c) clear operational definitions, and (d) replication. Systematic assessment includes using standardized procedures and well-validated instruments. Repeated measurement is required to reduce the likelihood that extraneous factors are influencing the outcome of the study. Operational definitions precisely specify how a variable is measured. Without clear operational definitions, replication by other researchers is not possible, and all scientific knowledge should be replicable or else its validity is questionable.

The diagnostic process formally begins once all pertinent data have been collected. The data collection process requires an extensive personal

interview and, ideally, formal testing. Modern diagnostic endeavors in mental health are based on the principles of parsimony and hierarchy. The principle of parsimony requires that one account for all available data with the fewest possible diagnoses. A single diagnosis that accounts for all observations is always the preferred option. The principle of hierarchy notes that mental illnesses cluster in a hierarchy of syndromes that tend to vary in severity. The most severe disorder that accounts for all the data is the most parsimonious diagnostic option. In practice, diagnostic endeavors follow a decision tree model. A diagnostic decision tree is a flowchart that allows a clinician to identify the most parsimonious diagnosis that fits the available data. Several decision trees are often required before one can arrive at the most parsimonious diagnosis.

In an applied setting (i.e., a doctor's office) the case study subject is the patient, and the data referred to earlier are called *signs* and *symptoms*. *Symptoms* are the complaints reported by a patient (e.g., a headache, hearing voices) and therefore are not directly observable. Signs, on the other hand, are directly observable and measurable (e.g., crying, a rash). Because symptoms cannot be directly observed, they are less reliable and carry less weight when rendering a diagnosis. Until very recently, diagnostic endeavors depended heavily on the skill of the clinicians or researcher and thus were often unreliable. Empirically validated diagnostic tests have now been developed for many conditions, adding considerable objectivity and rigor to the diagnostic process.

Application

Diagnostic case studies provide unparalleled insight into illness at the individual level of affliction. These rich data have provided the foundations for many of the grand theories in psychology. Sigmund Freud, for example, developed the vast architecture of psychoanalysis from case study observations. Although many of his findings were subsequently refuted, psychoanalytic thought remains a viable and influential theory of mental illness. Diagnostic case studies, therefore, serve an important theory-building function.

The richly nuanced data that are gained from appropriately conducted diagnostic case studies can

also be used to assess treatment efficacy at the level of the individual. Although more labor intensive than a single large-scale study, a series of case studies can identify subtle individual differences in treatment response that are typically obscured by the averaging effects that result from group comparisons. In fact, diagnostic case studies are the only investigative method that will provide data on treatment effectiveness at the level of the individual.

The data generated by an appropriately conducted series of diagnostic case studies can also be used to generate hypotheses for subsequent investigation with more statistically robust large-scale studies. Thus, case studies can serve as frontline exploratory investigations that help focus larger follow-up inquiries.

Critical Summary

Although few would argue against the hegemony of group-design methods in science, an exclusive reliance on group research designs seems illogical when the ultimate focus is the individual. Clinical psychology and psychiatry are obvious examples of disciplines that ultimately have the individual as their focus. These disciplines can be ill served by an excessive reliance on research designs that obscure individual differences by averaging results across large groups of research participants. Case studies are the only scientific method for exploring the richness and diversity of the individual.

Unfortunately, case study designs lack the rigorous control of group designs. The data generated by diagnostic case studies are also difficult to generalize to a broader population. Thus, the individual level of analysis that is characteristic of the case study method must be supplemented by the group-level analysis offered by large-scale studies. Ideally, these two methods of inquiry should coexist to generate a richly detailed understanding that can be generalized to the population at large.

Marc Nesca

See also Case Study Research in Medicine; Case Study Research in Psychology

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DIALECTICAL MATERIALISM

Dialectical materialism has been defined both as a natural philosophy—a philosophical generalization of the most fundamental truths disclosed by the natural sciences and by the Marxist social science of historical materialism—and as a method of inquiry committed to a realist approach in epistemology and to materialist-monism in ontology. At the most general level it represents an attempt to synthesize elements of two preexisting philosophical traditions: (1) the philosophical materialism of the European Enlightenment and (2) the dialectical logic of the German idealist philosopher G. W. F. Hegel. Hegel's dialectics are conceived as a corrective to the mechanical determinism of traditional materialism, and materialism is seen as the appropriate basis for challenging the absolute idealism of Hegel's system.

Conceptual Overview and Discussion

If historical materialism is generally regarded as the *science* of Marxism, then dialectical materialism is widely considered to be the its *philosophical* foundation—although this view has been challenged by many who argue that Karl Marx's *scientific socialism* involves a kind of transcendence of philosophy or that Marxism is a variety of humanism. The term is sufficiently elastic, however, to accommodate a wide variety of perspectives within an ecumenically defined Marxist tradition. Thus, proponents of dialectical materialism (or the *materialist dialectic*) include humanists who emphasize the role of conscious activity and the subjective factor in shaping human outcomes as well as

anti-humanist structuralists who argue that human activities and intentions are mere effects of the autonomous interplay of forces and relations of production within determinate modes of production. (Despite this elasticity of interpretation, however, many Marxists have eschewed dialectical materialism in large part because of its baleful association with the mechanicism of the Second International and, especially, the rigid dogmas of Stalinism.) Dialectical materialism has inspired a tremendous variety of case studies within both the natural and social sciences, and the fact that it has been understood and applied in Marxist thought in so many different ways invites a case study approach to the topic of dialectical materialism itself, as well as the implications of its basic principles for case study methodology.

In his *Theses on Feuerbach* of 1845, Marx suggested that his "new materialism" incorporates the traditional idealist concern with "the active side" in human affairs while also insisting on the essentially sensuous (material) character of human activity. In his 1873 postface to the second edition of *Capital*, he wrote the following:

My dialectical method is, in its foundations, not only different from the Hegelian, but exactly opposite to it. For Hegel, the process of thinking, which he even transforms into an independent subject, under the name of "the Idea," is the creator of the real world, and the real world is only the external appearance of the idea. With me, the reverse is true: the ideal is nothing but the material world reflected in the mind of man, and translated into forms of thought. (Marx, 1977, p. 102)

What is common to Hegelian and Marxist dialectics is the conviction that reality must be grasped as a unified totality that is subject to incessant change and that is, in principle, *knowable* by human consciousness. In the most general sense, then, dialectic is the logic of an ever-changing reality. But the question is posed: Does this logic belong to reality itself, or is it simply a set of principles employed by the human mind to grasp what is happening beyond it? If mind is internally related to everything else that exists, then this question is basically meaningless, for if mind and material reality are not metaphysically separated and absolutely distinct from one another but instead form a

contradictory unity of opposites, whether grounded in physical matter or in an incorporeal consciousness, then mind and reality are *one* in a fundamental ontological sense. A consistently dialectical worldview is therefore also a *monistic* one—an ontology that refuses the dualistic division of reality into absolutely separate worlds (e.g., the material and the ideal or the natural and the supernatural). Yet this unified reality is subject to considerable differentiation, resulting in the interaction of a great many distinguishable elements. It is the mutual relations and motion of these elements that dialectical logic seeks to grasp.

At the very heart of dialectical thought is the idea that the conflict of opposites within a larger unity (the *law of contradiction*) is the main driving force behind the process of change. For Hegel, change-inducing conflict occurs within a spiritually grounded consciousness (the *process of thinking*, as Marx put it), whereas for Marx it occurs within the "material world."

While insisting on the need to extract the "rational kernel" from the "mystical shell" of Hegel's philosophy, Marx never gave a clear exposition of his own dialectical method. His Capital may nevertheless be read as a specific application of a number of key dialectical principles to a particular object of investigation: the capitalist mode of production. Among these principles are (a) the movement from the abstract to the concrete, (b) the systematic ordering of concepts, (c) the contradictory unity of opposites, (d) the transformation of quantitative changes into qualitative ones, and (e) the negation of the negation. It was left to his collaborator Frederick Engels to give a more schematic and philosophical presentation of some of these principles in such works as Anti-Duehring and Ludwig Feuerbach and the End of Classical German Philosophy. A posthumously published work, The Dialectics of Nature, suggests that, for Engels at least, dialectic was not simply a method (of a conscious subject involved in active relations with various objects) but a set of universal ontological principles, applicable to both the natural and the human world. Although it is doubtful that Engels intended it, this "ontological" understanding of a dialectically structured reality opened the way for an anti-humanist interpretation of the materialist dialectic—one that typically fails to register the causal efficacy of conscious activity in human affairs.

As the official dogma of the Soviet Union and the international Communist movement over several decades, the Stalinist version of dialectical materialism played down the subject-object dialectic that Marx and Engels inherited from Hegel in favor of a naturalization of the laws of social development disclosed by Marxist social science (historical materialism). In doing so, it asserted that human history is governed by the same inexorable dialectical laws that govern the natural world. The result was a version of dialectical materialism that pushed historical materialism toward economic determinism—the view that only the economic base of society possesses causal efficacy and that political, theoretical, and ideological factors belonging to the social superstructure are purely epiphenomenal. Indeed, in its crudest form this economic determinism accorded a privileged role in social development to technological change (the expansion of productive forces within specific modes of production). Stalinist diamat may therefore be understood as a reversion to mechanical materialism.

Marx and Engels pioneered a materialist conception of history (later referred to as historical materialism), but they never used the expression dialectical materialism. That term was coined in 1891 by the Russian Marxist Plekhanov, who lacked access to many of Marx's early, more philosophical writings. The eventual publication of Marx and Engels's The German Ideology and especially Marx's Economic and Philosophic Manuscripts of 1844 stimulated a proliferation of challenges to Plekhanov's orthodox Marxism—an important pillar of both Second International Marxism and Soviet Communism. In later years, these challenges also took the form of a critical examination of Vladimir Lenin's Materialism and Empirio-Criticism of 1908 in light of Lenin's more mature (i.e., dialectical) views in his *Philosophical* Notebooks.

In the 1920s and 1930s, Western Marxist challenges to orthodox Plekhanov-style dialectical materialism were mounted by Hegelian-inclined Marxists such as Karl Korsch, George Lukacs, and Antonio Gramsci, who viewed the Bolshevik Revolution of 1917 as a practical refutation of the Second International's mechanical materialism and a triumph of revolutionary consciousness and praxis. In their own ways, these theorists sought to

provide the international communist movement with a philosophy adequate to its ostensible programmatic ambition: world socialist revolution. However, this "Hegelianized Marxism" was denounced by more authoritative figures within the Third International, such as Zinoviev, as an unacceptable departure from genuine Marxism. A later generation of Western Marxist theorists, associated with Della Volpe's positivism, Althusser's structuralism, and Colletti's neo-Kantianism, deployed more sophisticated arguments to purge Marxism of its Hegelian and humanist residues, often drawing on intellectual traditions expressly critical of dialectical logic. In doing this, many of these theorists sought to overcome the contradiction between the formal allegiance of world communism to dialectics and its actual commitment to more pragmatic, empiricist, and mechanicist perspectives.

The history of the controversy surrounding dialectical materialism reveals much more than the susceptibility of Marx and Engels's "communist world outlook" to different philosophical interpretations. More important, it demonstrates the way in which programmatic considerations have dominated and shaped theoretical ones within ostensibly Marxist thought. The dialectical interplay of theory and program is one in which program is almost always the dominant term. This can be demonstrated by adopting a case study approach to the development, diffusion, and critique of dialectical materialism itself. Marxists drawn to more mechanical or structuralist interpretations have most commonly associated themselves with gradualist or reformist programmatic orientations and are given to citing the "immaturity of the objective conditions" as a rationale for a nonrevolutionary practice. Conversely, Marxists drawn to more voluntarist interpretations that emphasize the role of conscious human agency in social change have generally also been proponents of a revolutionary program. Among the latter, those who are most impatient for revolutionary action are also the most likely to downplay the importance of material conditions and emphasize the role of sheer will in effecting a fundamental social transformation.

Application

As the official philosophy of the Union of Soviet Socialist Republics, the Stalinist version of dialecti-

cal materialism exerted a profound influence over Soviet scholarship for many decades, shaping the research agendas not only of historians, psychologists, and social scientists but of natural scientists as well. The application of the laws of dialectical materialism produced a plethora of studies of widely varying quality. The most infamous was undoubtedly the work of Trofim Lysenko, who claimed that it was possible to dramatically improve crop yields by changing the physical characteristics of seeds through simple manipulations of temperature and moisture and that the effects of these changes could be passed on to succeeding generations—a version of the Lamarckian theory of the inheritance of acquired characteristics. Lysenkoism had a disastrous impact on the progress of agronomy and genetics in the Soviet Union. Even so, it was officially sanctioned by the Soviet ruling elite under Stalin and Khrushchev because of its apparent affinity to such dialectical laws as "quantity into quality" and the "negation of the negation." In the West, the case of Lysenko was often cited during the Cold War as an object lesson in the dangers of state ideological interference in science and the absurdity of dialectical materialism.

The influence of dialectical materialism on the work of scholars and intellectuals, in the communist world and elsewhere, has not always been so negative. In the realm of the natural sciences, for example, a nondogmatic materialist dialectic has been put to good use by Richard Levin and Richard Lewontin in their book *The Dialectical Biologist*, and John Bellamy Foster applied it intelligently in his elaboration of *Marx's Ecology*. Within Marxist political economy, the concepts of dialectical materialism have been indispensable to the development of more sophisticated versions of value theory and the theory of capitalist crisis. For example, the work of Tony Smith has demonstrated how a systematic dialectical methodology can help scholars to order and develop their concepts in such a way as to more effectively synthesize the empirical evidence and theoretical insights presented by contending schools of Marxist and non-Marxist thought. Smith has produced important studies of lean production and globalization that illustrate the fruitfulness of this methodology and that have made important strides in completing Marx's unfinished theoretical agenda for Capital.

Within Marxist historiography, the principles of dialectical materialism have inspired ways of thinking about historical events and processes that have often been highly insightful, but it has always been in the realm of Marxist politics that dialectical materialism has had its greatest impact, with more "mechanical" versions informing and rationalizing the national-reformist theories and projects of social democracy and Stalinism and more truly dialectical versions providing philosophical support to such revolutionary alternatives as Trotskyism and council communism. Thus, in the conflict between Stalin's conception of building socialism in one country and Trotsky's theory and strategic perspective of permanent revolution, the former was plainly committed to a view of human history that was mechanical and stageist, whereas the latter based itself on a more dialectical conception of uneven and combined development on a world scale. Dialectical conceptions also inform Trotsky's characterization of the Soviet Union under Stalin as a degenerated workers state—a hybrid or transitional social formation in which the economic structures brought into being by the Russian socialist revolution continued to serve the historical interests of the working class but in which political power was monopolized by a privileged bureaucratic oligarchy that posed a threat to their survival. Trotsky's case study of the Soviet Union in The Revolution Betrayed (1937) is an exemplar of how dialectical materialism can be applied to analyzing the social phenomenon of Stalinism, yet other Marxists, also claiming to base themselves on the methods of dialectical materialism, have drawn very different conclusions. For example, Raya Dunayevskaya and C.L.R. James employed a more Hegelian and humanist interpretation of Marxist philosophy to support the claim that the Soviet Union under Stalin was a form of state capitalism.

Critical Summary

What these controversies point to is the conclusion that the materialist dialectic is not a method that leads ineluctably to definite conclusions. By itself, it can "prove" nothing about the nature of reality. At its best, it is simply an aid to reason and to open-ended empirical research—a stimulus to consider specific problems (in particular, those pertaining to the dynamic interplay of the natural, the

social, and conscious activity) in ways that are alert to the inherently contradictory nature of reality, that view things in terms of their empirically real interconnections with other things, and that refuse the bifurcation of reality into metaphysically separated worlds. Case study research strategies can benefit from dialectical materialism insofar as it is treated not as a dogma but as a methodological antidote to the subjectivism, idealism, and dualism that inform much of contemporary non-Marxist social science.

Murray E. G. Smith

See also Base and Superstructure; Class Analysis; Historical Materialism; Modes of Production

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DIALOGIC INQUIRY

Dialogic inquiry emerges from the theoretical assertions of M. M. Bakhtin. Bakhtin's theories,

originally situated in the analysis of literary genres, examine the cultural and social context of language as a complex, negotiated, meaning-making system. Dialogic inquiry is an approach to research that examines the active and responsive nature of language among participants in appropriating, constructing, and reconstructing knowledge for self and other.

Conceptual Overview and Discussion

According to Bakhtin, all human consciousness and experiences come into cognition through language, or language-in-use. *Language-in-use* refers to complex systems of language (including texts, artifacts, speech, gestures, conversations, socially accepted actions, customs, etc.) that produce, inform, and are continually informed by knowledge of self, other, society, culture, and so forth. Language-in-use can also be described as *discourse*.

Bakhtin claims that discourse is not neutral, but rather (over) populated with the intentions, histories, beliefs, and so forth, of others. Consequently, discourse is seen as socially constructed, situated, and continually informed by past and present contexts. Discourse is perceived as potentially transformative and replete with tensions as one negotiates multiple perspectives. As such, individuals are understood to be dynamic and evolving entities, potentially affected and changed by discourse, and possess the potential to affect change for another. Bakhtin refers to this as *ideologically becoming*.

Bakhtin defines two types of discourse: (1) authoritative discourse and (2) internally persuasive discourse. Authoritative discourse can be viewed as discourse that carries unquestionable authority and power and is taken as given without critique or question. In contrast, internally persuasive discourse is discourse that is one's own and is reflective of autonomous thought. Human consciousness, according to Bakhtin, is a continuous negotiation of tensions between authoritative and internally persuasive discourse.

More recent conceptualizations of dialogic inquiry have been taken up by others, such as Gordon Wells. Wells, building on Bakhtin's conceptualization of dialogism, proposes the *dialogic inquiry approach* to learning and knowledge construction. This model emphasizes (a) the role of

experience in shaping learning; (b) the role of internalization of external stimuli; (c) the active construction of knowledge through a meaningful appropriation and perhaps modification and improvement of external stimuli; and (d) over time, achieving an understanding of stimuli such that the knowledge becomes integrated into the individual's experiences. The approach is iterative.

When approaching case studies from a dialogic inquiry approach, Bakhtin's theoretical view of discourse shapes and precedes methodology. As a result, significant consideration needs to be given to the ways in which data are collected and subsequently analyzed. Careful attention to language; context; culture; and sociopolitical, socioeconomic, and historical perspective is required to develop cases for analysis. A continuous iterative evaluation of the results is necessary to establish the ways in which discourse shapes and reshapes individuals both internally and relationally.

The complexities associated with characterizing authoritative and internally persuasive discourses should not be underestimated. As Bakhtin explains, often discourses are simultaneously authoritative and internally persuasive, and clear distinctions may not be readily evident without perhaps some cross-analysis of multiple data sources. Cases are analyzed from the stance of interrogating multiple-voiced perspectives and the ways in which those perspectives are potentially internalized. Case studies emerging from a dialogic perspective often offer competing alternative perspectives of phenomena.

Research questions appropriate for case studies utilizing a dialogic framework might include those (a) directed at gaining a deeper understanding of phenomena, from multiple perspectives; (b) examining changes in belief systems over and throughout time; (c) analyzing the sociocultural implications of power, and so forth. In all cases, the theoretical lens of dialogic inquiry frames the methods used to undertake the research. Research of this nature is deeply embedded in theory. The end purpose of dialogic inquiry is not necessarily more theory, or more generalizability, but rather understanding.

Application

Two examples of dialogic inquiry, from a Bakhtin perspective, in case study research are Scott Bulfin

and Sue North's study of digital literacy practices of youth and Barbara G. Pace's cross-case analysis of two college-level students' responses to critical literacy readings.

Bulfin and North's case studies of 20 youth, aged 15 and 16, investigated the ways in which digital technology practices of the youth "rubbed up" against those of authoritative figures and how those practices transcended school–home boundaries. Data sources included interview recordings and transcripts; student media use diaries; field and observation notes from school and home visits; and other documents and artifacts, including online documents (MSN conversations, e-mails), photos, and digital video (also from students' phones and digital cameras). The collection of data sources formed the "texts" from which the analysis occurred and the cases were constructed.

Bulfin and North describe somewhat obvious sources of authoritative discourses, common to both home and school, which include restricted Internet access, limited usage (i.e., digital phones, online time, etc.), and privileged usage (i.e., computer as a homework tool). The noteworthy aspect of these case studies was the way in which students exercised internally persuasive discourses, often in subversive and nonapparent ways. For example, Bulfin and North describe how one student created fictitious Web sites with "safe" names (e.g., "weather") to bypass sites commonly blocked on school-based computers.

Another student described how appearing attentive in class concealed her prohibited use of an MP3 player during classroom instruction. In short, Bulfin and North demonstrate multiple ways that students found to negotiate tensions between completing discourses in both the home and at school. Bulfin and North conclude that both home and school are negotiated spaces for youth with respect to digital technology. The authors propose that literacy education could benefit from an understanding of these negotiated spaces, rather than dismissing the popularized culture that students actively seek as irrelevant to learning. The students across these case studies found ways in which to engage in the forbidden or internally persuasive discourse, despite the authoritative discourse.

Pace's research investigated the ways in which two students in a writing-about-literature class responded and interpreted events in a story. In this study, Pace focused on two female students for a cross-case analysis to examine the how the students' initial private responses shifted (or not) following whole-class discussions regarding a story about a woman confined to her bedroom by her husband.

The first student, Kavita, was of Indian descent and had immigrated to the United States prior to the ninth grade. The second student, Jennifer, was white and a U.S. native. Data sources included student reading-response journals; transcripts; and field notes from the 2 days of class discussions, interview data, and final analytical essays.

Pace saw evidence in the data that Kavita and Jennifer both recognized the central themes of the story as independence and identity. Kavita, through the course of her interviews, described her resistance to the expectation of marriage as an authoritative discourse within her culture, whereas Jennifer failed to understand the quest of the woman in the story and largely idealized marriage. Kavita initially asserted that the husband treated the woman as "child-like." Following whole-class discussions, which centered largely on the mental illness of the woman in the story and the actions of the husband, both students argued in their final essays that the main problem was societal understanding of mental illness versus the husband's treatment of his wife.

Both women, as they engaged with the text through the various data collection stages, demonstrated high adherence to authoritative discourses, despite tensions that may have arisen around the ethical dimensions of the treatment of the woman in the story, and despite their cultural differences. The comparison of the cases, through multiple data sources, demonstrates the pervasiveness of authoritative discourses and highlights the challenges educators must contemplate with respect to critical literacy.

Critical Summary

Case study analysis from a dialogic-inquiry perspective focuses on complex views of language-inuse, or discourse. Cases examined from this stance represent a specific theoretical perspective on the role of language. Language is seen as a complex meaning-making system that is multivoiced and culturally and socially situated. Meaning-making

is a constant negotiation between competing tensions (i.e., authoritative and internally persuasive discourses). Case studies from this perspective illustrate the way in which discourse is shared and then revoiced by participants.

Donna Kotsopoulos

See also Discourse Analysis

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DIARIES AND JOURNALS

Diaries and journals are research tools that require either the participants or the researcher to reflect on the research process or research study. Traditionally, they record their thoughts, ideas, questions, and topics for discussion. *Diaries* are regular, intimate, and contemporaneous, and they act as a written record of events. *Journals*, however, are sporadic, detached, and asynchronous, but they also act as a written record. In general, diaries are used more frequently by research participants, whereas journals are used by the researchers when the focus of the study is to investigate the same phenomenon.

Conceptual Overview and Discussion

Diaries and journals case study research lends itself particularly well to investigating the central research question under review and can be used in quantitative, qualitative, and mixed methods research studies. Historically, diaries and journals have been used for hundreds of years, from Sei Shonagon's *Pillow Book*, to Saxon monks, to Samuel Pepys's famous diary; however, as a clear research tool, diaries and journals have been used extensively over the past three centuries.

Dairies and journals have been used in varied disciplines for varied purposes. For instance, social historians have performed hermeneutic analyses of diaries that reveal the social conditions of the time period under study, the feelings of the diarists, the dress of the time, and the politics of the time, to name a few. Often, these sources of data are doubly important because other sources have been destroyed or heavily censored. Experimental researchers use diaries and journals extensively when survey data do not provide the type of information needed for close analysis of practical problems. For example, when a researcher wants to investigate the daily habits of a target group, a diary or journal works particularly well as the participant records his or her daily activities over a specific period of time. This close analysis of participants' routines cannot be revealed through other methods, such as questionnaires and interviews. Oftentimes, these entries act as a substitute for the researcher's recording his or her observations of a target group. Naturalistic or ethnographic researchers frequently access data through diaries and journals as a method of studying takenfor-granted elements of social interaction. In other words, ethnographers are able to extract information from participants in their natural settings and explore tacit knowledge without being overly intrusive. As well, the diarist or journalist controls the recorded information and the format of the diary or journal and often constructs his or her self-identity, which becomes invaluable information for the ethnographer.

At times, the researcher might focus the entries by creating a template to be followed loosely by the diarist, or the researcher might supply a guiding question or statement (e.g., "Describe how your day goes for the next two weeks with a particular emphasis on how you discuss issues with colleagues"). Often these frames provide a starting point for the diarist or journalist without sacrificing autonomy. These entries also provide rich data for the researcher.

Often the researcher is involved in reflection on both the content and the process of the research study, and diaries and journals act as a conduit for these reflections; that is, the researcher transforms standard field notes into critical reflection or critical self-reflection on the research study. At times, the information is related to fine-tuning the study itself (e.g., revising interview questions), but frequently the researcher records personal feelings in the diary or journal, which can serve to strengthen the interpretation of the data as the recorded thoughts are seen through a more personal lens.

Finally, in case study research, as technology becomes more sophisticated, diaries and journals can be recorded and analyzed using advanced computer software. For example, if the entries from a diary or journal are handwritten, they can be transcribed or scanned into a computer for analysis or directly imported if the diarist or journalist used a word processor or recorded on a Web log (i.e., a blog). These data can then be analyzed through a variety of methods. For instance, qualitative data such as diary entries can be quantitized by assigned numeric values to responses or using a statistical analysis (e.g., Rasch analysis). Also, quantitative data, such as how frequently a journalist performs a daily task, can be *qualitized* so that the researcher can deduce how important a daily activity is to the whole group under study. Clearly, diaries and journals data can easily enhance legitimation of the research results because they can be used with qualitative and quantitative analyses to ensure descriptive precision and numerical precision.

Application

Two exemplars of diaries and journals research are Bronislaw Malinowski's seminal 1967 ethnographic study of the Trobriand Islanders in the 1910s, and Dawn Francis's 1995 study of preservice teachers' practical knowledge.

Malinowski's pioneering anthropological work not only laid the foundation for the study of simple and complex cultures but also established researcher field notes as a viable method of studying participants and formed the foundation for participant observation as a legitimate case study research method. Over the course of 2 years, he lived with the Trobriand Islanders, immersed himself in their culture, and learned their language. His focus was

to learn the ways of the islanders in a functional manner, so he studied their daily rituals and recorded his thoughts in a diary.

Each day, Malinowski recorded his observations of the Pacific Islanders and discussed his perceptions of their marriage, trade, and religious customs. Most significantly, he recorded not only what the Trobriand Islanders said about their religious beliefs, trade rituals, sexual practices, and marriage customs but also how these beliefs, rituals, practices, and customs all measured against the islanders' everyday lives. At times, his diary recorded mundane activities, but frequently Malinowski recorded his own perceptions of their beliefs and his own feelings of living with the people. For instance, he noted that when fishing in the lagoon, they acted in a straightforward matter, but when fishing beyond the lagoon, in more treacherous waters, the islanders performed magic rituals to increase their courage. What Malinowski's diary entries showed was that he admired their coping mechanism and showed that they had a systematic method of dealing with their fears while maintaining their social and economic structure of being fishermen. Similar entries revealed that he perceived no difference between their so-called primitive culture and the cultures of more sophisticated people; the Trobriand Islanders perceived reality at a similar level and created intelligent solutions to complex problems.

After his two stints with the Trobrianders, Malinowski's diary entries demonstrated that the anthropologists who studied cultures from a distance were incorrect in their assumptions that all cultures followed a linear development as espoused by the social Darwinists of the time. By living among the people and recording both their daily activities and his personal comments about the people, Malinowski provided significant anthropological case study data. He was not always favorable in his comments about the people, but many times his entries were objective, descriptive, and straightforward.

Malinowski's diary was translated from Polish, edited by his widow, and published several years after his death. It is not clear whether Malinowski would have wanted his diary published, but it has proven valuable for generations of researchers.

Dawn Francis employed reflective journals with bachelor of education students in their final year of a 4-year degree. The students were required to keep a journal that was organized into four sections: (1) lesson plans, (2) reflection on workshops attended, (3) reflection on events that impacted their personal view of teaching, and (4) a critical summary of professional readings. The preservice teachers had full autonomy over the content and format of the entries but were required to stay within the parameters of the four sections.

The students were given time at the end of each lecture to record their thoughts, and the journals were collected at the end of each class. For the most part, the readers responded to the entries in nonjudgmental ways so that the students would not be inhibited when writing further entries.

The most salient findings from this study, and reflective of many studies using diaries and journals, were that the journalists needed to learn how to journal and needed to establish a commitment to journal writing. To wit, the preservice teachers learned that the most effective ways to write were to have a balance of structured activities and prompts with free-focus writing in which they could record their thoughts in a stream-of-consciousness manner. As well, they had to be allotted time to record their entries until the process became natural enough that they began to reflect in the journals outside of class time.

Malinowski's and Francis's studies demonstrate how diaries and journals can provide valuable information about case studies through a variety of lenses. Because of the personal nature of the method, diaries and journals reveal rich data about participants and researchers that are often omitted, ignored, or elusive when other research methods, such as surveys and interviews, are used.

Critical Summary

Diaries and journals as case study research tools often examine the participant's self-reflection and critical self-reflections and the researcher's reflections on the design and analysis of the study. Diaries and journals research is powerful because it allows the participants to reveal their feelings in relation to the research study focus in a highly subjective manner but allows the researcher to objectify those feelings through a variety of data analysis methodologies and techniques.

Andrew D. Kitchenham

See also Ethnography; Hermeneutics

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DIRECT OBSERVATION AS EVIDENCE

In case study research, multiple rather than single methods of data collection are employed. Direct observation as a source of evidence can contribute to the development of a strong case study. Direct observation provides an opportunity for researchers to observe directly what is happening in the social setting, interact with participants, and participate in activities.

Conceptual Overview and Discussion

Direct observation may be referred to by other terms, including participant observation, site visits, or field work. Use of the term participant observation is closely linked to ethnographic research. Michael Patton, who has written extensively on qualitative research, indicated that direct observation provides insight into the taken-for-granted aspects of everyday activities that may go unreported by participants, gives the researcher direct experience of the phenomena being studied, and creates an opportunity to see and hear what is happening in a social setting rather than focusing solely on narrative descriptions of participants.

The nature of direct observation as a method of data collection will be shaped by the particular epistemological research tradition that is guiding the overall research project. Egon Guba and Yvonne Lincoln proposed five paradigmatic perspectives that describe contrasting epistemological views. These epistemological perspectives include positivism, postpositivism, critical theory, constructivism, and participatory paradigms. The particular epistemological view taken in the research has methodological implications for decisions about the role of the researcher and the nature and focus of the observations.

Positivistic and postpositivistic paradigmatic views would suggest that the researcher takes the role of a detached observer, whereas other views would suggest there is engagement of the researcher as a participant, critic, or collaborator in the research. The researcher may just "hang out" or participate to varying degrees in the activities or roles within the setting being studied. As Michael Angrosino and Kimberly Mays de Perez observed, ethnicity, gender, and class, as well as social and cultural norms, will shape the researcher's role in the social setting, influence the nature of observations and interactions, and generate different conclusions.

Observations may be structured or unstructured depending on the epistemological underpinnings of the research. In some types of case study research direct observation will be guided by specific checklists as a means of focusing on selected behaviors or activities that are the focus of the research. In other types of research observations may be completely unstructured at the beginning and become more selective over time. The research purpose and questions identified for the project should provide direction as to the focus and duration of observations. Periods of significant immersion are generally required for the researcher to integrate him- or herself into the setting and gain sufficient insight and experience for analysis.

Observation requires the development of skills in paying attention, locating oneself as an observer, and disciplined practice in writing field notes. Reliable and accurate observation means that researchers must be present in the moment in order to engage in, as Michael Patton described, "systematic seeing." Systematic seeing is a disciplined approach to making observations that are accurate, reliable, and relevant to the focus of the research. A systematic approach to observation means that one is constantly aware of and attentive to what is going on in the setting? What are

people saying? What are people doing? What interactions are taking place? What else is going on? Which of these observations are relevant to the focus of the research? Disciplined observation requires immersion in the setting and constant questioning as to the meaning of observations. In order to generate insights from observations, researchers must be equally disciplined in acknowledging their own perspectives and positioning as a researcher and in the writing of field notes that capture valuable observations and clues as to the meaning of observations.

Robert Emerson, Rachel Fritz, and Linda Shaw have written extensively about writing field notes. In field notes the researcher records what he or she has seen, heard, felt, smelled, and experienced through his or her direct observation; they provide an opportunity to reflect on one's own values, beliefs, and assumptions that may be influencing perceptions. In addition, field notes can be used to record analytic insights and methodological decisions. To enhance reliability and validity, researchers using direct observation should articulate their location in the research and be cognizant of factors affecting their location and experience as well as potential influences on what people say and do. These issues have been discussed in relation to emic/etic perspectives or insider/outsider debates. Discussion of observations and findings with participants can also enhance the reliability and validity of the research. Because direct observation is one source of data in a case study, the use of triangulation in data collection will also contribute to increasing rigor because comparisons, insights, and new understandings in the research will be generated through analysis of other data sources.

Application

In a study that examined nursing practice in innercity healthcare centers, Bernadette Pauly drew on critical and constructivist epistemological perspectives that shaped the focus of observations and her role as an observer. In this study observations were focused on the role that nurses played in facilitating access to healthcare for people who were street involved (e.g., homeless or using drugs). In particular, the focus of observations was on the nature of interactions between nurses and the persons accessing care within the context of an inner-city

healthcare center. Pauly was particularly interested in the enactment of ethical nursing practice that fostered access to healthcare, so she observed and documented what nurses did and said, and she looked for responses from those accessing healthcare and clues that would illuminate an understanding of the impact of the cultural context on nursing practice and access to healthcare. Initially, Pauly was attentive to all aspects of the setting, such as the physical location/layout, organizational structure, type of services provided and by whom, people accessing the center, relationship to other relevant organizations, background/experience of participants, important issues or dominant concerns of participants, dominant values, and organizational norms. This initial phase of paying attention with all of one's senses was important for getting a big picture or general survey of the setting and was followed by a phase of more focused observation and inquiry. As the research progressed, observations became more focused on the knowledge, attitudes, values, and beliefs of registered nurses that were consistent with enhancing access to healthcare and the corresponding factors that reduced access to healthcare.

Pauly began with an assumption that she would be a participant in the setting and negotiated her role with the participants. Initially, she acted as an observer, following nurses in their everyday activities. Over the course of the study, she participated as a nurse, receptionist, and team member. It was possible for her to take on these roles as participants came to trust her and because she was already a registered nurse with 20 years of experience in healthcare. It is expected that the role of the researcher may change over the course of the research and will need to be negotiated to determine the least disruptive approach that is consistent with the goals of the research. Being engaged actively in the setting gave Pauly an opportunity to make up-close observations from different points of view that informed her understanding of the cultural context. For example, acting as a receptionist and answering the phone or welcoming people coming to the clinic gave her an opportunity to see and make observations from the perspective of people entering the clinic setting and thus gain a better sense of the overall structure and organization of the clinics and cultural milieu.

At the beginning of the study, Pauly was advised to identify herself to clients as a registered nurse and researcher, because registered nurses working in the inner-city health clinics were among those most trusted by people who came to the clinic. However, this positioning as a nurse meant that she was provided with information by clients that they thought appropriate to share with nurses and thus acted as a factor that shaped the information they provided. In some regard, being a registered nurse gave her access to experiences that other researchers might not have gained, such as ease of entry into clinic rooms and freedom to move on the street when doing outreach. However, this positioning likely restricted access to drug culture and street activities such as the sex trade or drug dealing.

Researchers conducting research that involves direct observation often enter into a setting that may be unfamiliar to them. This has the benefit of providing a fresh perspective from which to make observations and the ability to bring to light everyday events and activities that might go unnoticed by those who are already participants in the setting. Although Pauly was an experienced nurse, she had not worked previously in inner-city healthcare centers, and she had limited experience with issues related to homelessness and substance use. Nurse participants in the study felt that the research brought attention and value to aspects of their practice that often went unnoticed. In other examples, the researcher may already be an active participant in the setting before becoming a researcher. This can facilitate entry into, trust, and acceptance in the setting. It may also provide access to perspectives and experiences inaccessible to outsiders. A disadvantage is that such positioning may limit the researcher's ability to see takenfor-granted aspects of everyday life. Negotiating researcher roles for those already immersed in the setting may create confusion for participants, and thus it may be ethically impossible in the context of preexisting relationships, such as manager/ employer and service provider/client, to conduct research in one's own setting.

The use of direct observation requires particular attention to issues of consent in the planning and implementation phase of the research process. Covert data collection is rarely if ever acceptable by current ethical research standards. Consent may be written or verbal. For example, in Pauly's research in inner-city healthcare centers written consent was used for primary nurse participants

and verbal consent was used for secondary participants, such as clients who were not the primary focus of observation. Informed consent can sometimes be challenging to obtain given time constraints, relationships with participants, and the nature of the observations being made. It is often difficult to determine in advance how or what data from observations will be used in a report of the findings. Thus, it may be important in some studies to return to participants to gain consent for inclusion of particular information or data.

Critical Summary

Direct observation provides a unique perspective for the researcher to obtain data for case study research. It is essential to make explicit the underlying research tradition to guide methodological decision making related to the role of the researcher and the nature and focus of observations. In the conduct of the research, disciplined practice is required to enhance the rigor of the research, and awareness and thoughtful reflection are needed to address challenging issues related to ethics and power.

Bernadette M. Pauly

See also Ethnography; Field Notes; Field Work; Mixed Methods in Case Study Research; Researcher–Participant Relationship; Subjectivism; Triangulation

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DISCOURSE ANALYSIS

The term discourse and its adjective, discursive, are not meaningful research terms unless modified by additional descriptors. One can say something about Foucauldian or Derridean discourse analysis, critical discourse analysis, narrative discursive approaches, and so forth, but one should be wary of any research claiming merely to be "discursive" and any methodology claiming only to analyze "discourse." As a term in common parlance since at least the mid-16th century, discourse is legitimately used to describe any speech, any conversation, and any process of reasoning. It may even still be used in its original etymological sense, meaning "to run to and fro." Anyone whose research is spoken or written—that is, anyone may claim with some justification that such research is discursive.

Conceptual Overview and Discussion

Approaches to social science research claiming to be discursive in a specifically methodological and/ or epistemological sense began to appear in social science theorizing in the 1980s, usually in scholarship claiming either to be deconstructive, with reference to the work of Jacques Derrida, or genealogical or archaeological, with reference to the scholarship of Michel Foucault. Derrida and Foucault do not stand alone, but they, far more than their colleagues (including Deleuze and Guattari, Kristeva, Spivak, Baudrillard, and others) have become popular in the English-language social sciences. Much of this discursive work has claimed to be, or has been labeled by others, poststructuralist or postmodernist. Such work can be understood to represent one variety of antiessentialist, or social constructionist, thought.

Conceptually, such work is grounded in Saussurian linguistics.

From this perspective, one can speak meaningfully of *discursive systems* as an object of analysis. When used this way, a discursive system has much in common with a paradigm as described by Thomas Kuhn in The Structure of Scientific Revolutions. In both cases, the reference is to a system of interlinked assumptions, values, beliefs, and interpretations forming a specific common sense about what is real, true, good, and important. The main difference between these terms would be that calling such common sense a discursive system directs one to look at this system through a linguistic lens, considering text as the data for analysis that will yield information about the underlying beliefs and their consequences. One must be careful not to automatically assume that the term discourse is being used in this way when one encounters it because, like the term *paradigm*, it has been used in a plethora of ways, some incompatible with each other, some questionable in their own right.

Broadly speaking, these approaches to scholarship are all heirs to the phenomenological philosophical tradition. One broad cluster of positions within this tradition, a cluster primarily indebted to Hegel, attempts to derive from interpretive reality an underlying, hermeneutic truth. Recent heirs to this tradition would include Hans-Georg Gadamer and Jürgen Habermas. Another, perhaps broader cluster emerging from this tradition abandons the idea of objective truth for more constructionist/ anti-essentialist assumptions within which reality is treated less as an objective thing to be discovered and more as a complex, multiply determined entity whose meanings are socially produced. The distinctive quality of discursive approaches to research would be reliance on the root metaphor of textuality.

If reality is a social product, it follows that the structure of a society's language contains evidence of the process by which that reality is produced and that determines the boundaries to what can and cannot be real within that common sense. When Foucault referred to his early work as *archaeological*, it was in this sense. Like an archaeologist digging through an ancient city, a "city of language" (a metaphor originating with Ludwig Wittgenstein), Foucault was exploring in language the sedimented evidence of the assumptions; the

values; the common sense through which, for instance, a phenomenon such as madness could have one set of meanings in one era and a contradictory set of meanings in another.

Textuality as a Root Metaphor

In a review of the organizational culture literature in the early 1980s, Linda Smircich distinguished between scholars who treat culture as a variable and those for whom it is a root metaphor. For the latter group, culture becomes the lens through which sense data are interpreted. Culture is not a topic among others; instead, all reality is significant to the extent that it is represented in cultural terms. From this perspective meanings are, axiomatically, cultural meanings. Analogously, for a Freudian psychologist sexuality is a root metaphor; psychodynamic processes are interpreted through a lens of sexuality. Marxian theories of surplus labor value appropriation constitute a root metaphor for Marxists. It is in this sense that textuality can form a viable root metaphor for analysis of social reality as discourse, as discursive systems—as text. It is not that everything is really text but that everything that has meaning functions textually and can be studied through the root metaphor lens of discourse.

One might, for instance, look at the discourse of universal human rights in Western history. Whatever good and bad has been done in the name of these values, there is an identifiable set of core statements and beliefs that powerfully affect actions, from political colonization of much of the world in past centuries to the recent American war on terror. The discourse of human rights has provided a language of social progress, of the "white man's burden," of liberating people and of democratizing. The relationship among knowledge, power, and action in these highly influential events can be profitably studied by seeking the data contained in text as evidence. Although there have been multiple approaches to discursive analysis, all tend toward one of two poles on an essentialistanti-essentialist epistemological continuum. Empiricist approaches, including, for instance, Peircean, Chomskian, and critical realist perspectives, are grounded in the assumption that language is a reflection of an underlying reality. The role of analysis, then, is to clarify language to

make it a nondistorting conduit for that underlying reality. Moving toward the opposite end of the continuum, many interpretive, poststructuralist, postcolonial, and related perspectives assume a more constructivist view of reality; that is, although physical reality is presumed to exist, we have no direct evidence of this reality except as it is mediated through socially constructed interpretations. Therefore, reality, understood as *meaning*, is literally a *product of* language. Consequently, one cannot seek "true" meanings. One can only elaborate how meanings are produced, foregrounded, marginalized, and shaped by social interaction that leaves its evidence in language.

For example, one might consider the tension between Frankfurt School critical theorists and French poststructuralists. Although the Germans, such as Habermas, conceded a high degree of constructivism, ambiguity, and interpretation to our knowledge of reality, they remain devoted to the search for transcendent meanings that reflect, if imperfectly, reality. We might contrast this with the major works of Foucault, who repeatedly attempted to show how fundamental notions such as insanity, crime, or sexuality changed so profoundly from one cultural epoch to another that there could be nothing about the notions that could be said to have meanings that transcended the situational.

For example, if one were to study representation of women in popular magazines from a feminist perspective, a Habermasian analysis would be directed toward showing how the underlying truth of gender equality is masked and distorted by representation. A more Foucauldian analysis would be epistemologically unable to claim to know an underlying truth; it would be restricted to showing competing representations and analyzing the differing consequences of differing representations. One might then advocate one representation over another, but this must be acknowledged as a value-based act. It cannot be legitimated with reference to objective truth or reality.

Speech Acts and Rules Governing Speech Acts

One can study the structure of a language, or one can study how individuals and groups use a language. Either is a legitimate object of study, but it is important to distinguish between the two. The latter is about what *is* done in a *specific* instance. The

former is about what *can be* done in *any* instance. For instance, suppose one conducted participant research with a group of salespeople with attention to the uses of humor by informants. It is possible that analysis of one's field notes would reveal patterns in the identities of the individuals who were the object of the jokes. A group of unhappily married men might be well stocked with humor reflecting negatively on wives. Another group might consistently denigrate recent immigrants, and so forth. Broadly speaking, there are two different constructs we might use this data to analyze.

On the one hand, this research might provide empirical data about the intentions and values of individuals. This might contribute to answering questions such as "What portion of salespeople in this formerly male-only occupation are prejudiced against female 'salesmen'?" or "How do people feel about the recent influx of immigrants from Ethnia?" On the other hand, our research might not be about individual perceptions and intentions at all. Suppose a happily married, profeminist man started work with a group of older salesmen who bonded in their free time by telling jokes that reflected negatively on wives and family life. The new guy must choose between being untrue to his values on the one hand and risking being an outcast on the other. In this case, the misogyny of the work group may not even involve intentionality or self-consciousness on the part of those participating. It is structural. Our research interest might be the process of social construction through which misogynistic jokes are normalized as expected behavior and legitimated as inoffensive. This situation was not produced by the study's participants, although they participate in perpetuating it. This is a structure preexisting, and largely independent of, their speech acts, one that they entered and one that can be studied as an entity in its own right.

Application

Analogously, one might look at the discourse of "productivity and efficiency" in organizations, with its origins in large-scale industrialization and its present contradictions in emerging postindustrial economies. This is a theme researched discursively in Jacques's *Manufacturing the Employee*, which seeks to discursively analyze the pernicious legacy of the industrial within the postindustrial

from a perspective indebted to Foucault. Similarly, one might study masculine bias within management discourse as did Joyce Fletcher by inquiring how the discursive system makes it easier to successfully speak of military and sport images than of more work-relevant feminized images related to nurturing, supporting, and communicating—even when these feminized qualities are precisely what is stated by management as being needed for organizational effectiveness.

The metaphor of text has not been limited to books, articles, and things commonly thought to be texts. Any systematically encoded practices can be read as texts. Verbal speech can be considered text. Street advertising, graffiti, signage, television, architecture, and more can be read. For instance, one might "read" particular forms of music videos, such as gansta rap, in order to determine the structure of that particular language in terms of its symbols and meta-messages structuring what can be said. What can be said, for instance, regarding the appropriate role of women (be a "ho" or a "bitch") or the meaning of success ("bling," coercive "gangsta" power). This constitutes a language in the sense that a music video producer can—and must—work with a specific vocabulary of symbols whose meanings are already familiar to speakers of this language: viewers. If these symbols are combined according to the rules of the language, they produce intelligible meanings. If they are not, they either produce unintended meanings or they are simply unintelligible. Even subversion of the rules, ironically, demands observance of the rules.

For instance, the 1998 video *Pretty Fly (For a White Guy)* by the Offspring, places a clueless, white suburban male at the center of an otherwise-expected language of rap video symbols, the gangstas, the guns, the bling, the women tricked out as bitches and ho's. With just the one symbol subverted—a rapper who is nerdy rather than cool/threatening—but leaving the language otherwise intact, the video is made humorous.

In contrast, imagine trying to make a rap video encouraging young men to embrace Islam; dress conservatively; treat themselves and women continently; abstain from alcohol, drugs, and guns; and devote time to spiritual study and bettering the community. There is no music video language for this message. There are heavy metal videos, rap videos, and rock chick videos, all with their own

dialect of the language, but there is no vocabulary within this language for representing Islam. One can do a video for the rock band Shihad, but spiritual *shihad* is unrepresentable, except as foolish. To communicate that message, one would have to either fit Islam into the lexicon of music video language (at the expense of the message), or one would have to get that language community to learn another language. This is done, for instance, by outreach programs such as San Francisco's Black Muslim Bakeries, where people are drawn for the food but through this interaction have an opportunity to observe reality interpreted through a different language—the discourse of Islam within which it is the vocabulary of the music video that is unrepresentable, except as degenerate.

Critical Summary

It is quite important at the present time to question whether the object of discourse analysis (or discursive analysis) is the speech act or the linguistic structure determining which speech acts are meaningful, because they are two different objects, and it is common for authors to fail to specify which they are studying. This potential confusion is compounded by a growing trend to call one's analysis discursive when it is grounded in methods and techniques that used to be called interpretive, ethnographic, narratological, or dramaturgic. Given the very broad set of meanings the term discourse has had, this labeling cannot be termed incorrect, but it is confusing and can be misleading. Within organizational studies, for example, most of the researchers who have worked under these headings have concentrated on the intentionality of individuals or groups, not on the structural conditions underlying those speech acts. Such work has not introduced methodological or theoretical innovations but has simply attached a more fashionable (albeit less informative) name to an established approach. To further complicate the matter, these approaches can be used as a basis for structural analysis, such as that of the anthropologist Claude Lévi-Strauss, so one cannot create a neat correspondence between theoretical position and method.

At present, one can assume only that research claiming to be discursive will, in some way, work with the metaphor of text. Beyond that, one cannot assume any specific methodology, epistemology, or object of analysis, because these are subject to variation. This is a problem only if one assumes discourse to be a discrete theoretical or methodological position, which it is not. Like *qualitative* research, discourse analysis is a term applied to heterogeneous positions that appear incoherent if lumped together but that constitute several distinct clusters of coherency if studied in their own right.

Roy Stager Jacques

See also Constructivism; Deconstruction; Genealogy; Langue and Parôle; Signifier and Signified

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DISCOURSE ETHICS

Discourse ethics, as Jürgen Habermas himself puts it, is a "discourse theory of morality" that defends the primacy of the "just" over the "good."

It provides a procedural explanation of the moral point of view and how moral norms may be justified on the basis of reasoned discussion, argument, and agreement among participants in practical discourses.

Conceptual Overview and Discussion

Discourse ethics arises out of Habermas's application of his theory of communicative action, in particular the validity claim of normative rightness, to moral theory and moral philosophy. Discourses, which address problematic validity claims, represent a reflective form of communicative action. All moralities are viewed as revolving around ideas of equality of respect, solidarity, and the common good, and such ideas can be reduced to the symmetrical and reciprocal relations presupposed in communicative action. In everyday communicative action within a particular lifeworld it is not necessary to extend the presuppositions about symmetry and reciprocity to people external to or not belonging to such a lifeworld. However, because lifeworlds exist in the plural, an extension into universality becomes necessary when argumentation on moral norms is at issue. Habermas distinguishes among three kinds of practical questions—pragmatic, ethical, and moral—but only issues of the right or of the just regulation of social interactions are subject to universally valid argumentation, agreement, and consensual regulation. Ethical questions (e.g., who we are, who I want to be), questions of the good, cannot be abstracted from specific ideas of identity and the good life within particular lifeworlds and traditions. This focus on the moral sphere as coextensive with questions of justice excludes much that is at present understood under the term ethics.

The project of discourse ethics has been assisted by Habermas's early collaboration with Karl-Otto Apel on the idea of an "ideal community of communication." This allows for a reformulation of the monologic nature of Kantian ethics by grounding moral norms in dialogic communication. As participants in argumentation, viewed as a problem-solving procedure that generates convictions, we are all on our own yet simultaneously embedded within a communication context. Immanuel Kant's categorical imperative—"Act only according to that maxim by which you can at the same time will that

it should become a universal law"—is replaced by a procedure of moral argumentation, combining the *discourse principle* (D) and the *universalization principle* (U).

The principle of discourse ethics (D) states that only those norms can claim to be valid that meet, or could meet, with the consent of all people affected in their capacity as participants in a practical discourse. Ideal conditions of such practical discourse can never be fully realized, and Habermas has now moved some distance from his earlier outline of the ideal speech situation, but the idea of consensus under ideal conditions has concrete practical implications in that participants engaged in a cooperative search for normative rightness or the just in any given contested situation must assume that such conditions are met to a reasonable degree. For this to occur (U), the universalization principle must hold, and such conditions are not met unless all affected can freely accept the consequences and the side effects that the general observance of a controversial norm can be anticipated to have for the satisfaction of the interests of each individual and that these consequences are preferred to those of known alternative possibilities for regulation. In practical discourse U acts as a rule of argumentation and is grounded in the presuppositions of argumentation in that anyone who attempts to discursively redeem normative claims to validity intuitively accepts such procedural conditions. Apel notes that this insight was unavailable to those following the philosophy of the subject (e.g., Kant) in that the uncircumventable "I think" ("Cogito") is not now to be understood as something transcendentally isolated and autarkic (as portrayed, e.g., in Rodin's *The Thinker*) that could never become part of language but must always and already be understood as "I argue in a discourse." One argues in practical discourses as a participant who belongs simultaneously to a local and an ideal communication community of Others.

Agreements made possible by discourse ethics depend on two things: (1) a person's right to say "Yes" or "No" to validity claims, as in communicative action, and (2) overcoming the egocentric viewpoint. People are individuated through processes of socialization and moral theories must solve two tasks simultaneously: (1) the inviolability of and respect for each individual related to autonomy and freedom and (2) protection of the

web of intersubjective relations of mutual recognition to which correspond the principles of justice and solidarity, respectively. Both principles have the same root: the vulnerability and exposedness of the human being linked to the insecure and fragile nature of personal identity that cannot be maintained in splendid isolation. It follows that the idea of autonomy becomes intersubjective in that the free actualization of one person's individuality depends on the actualization of freedom for all.

Discourse ethics, notwithstanding its sustained critique of individual reflection, remains in the tradition of Kantian moral philosophy in that it is deontological, cognitivist, formalist, and universalist. Kant dealt only with problems of right or just action, not with all the problems of the good life as in classical moral philosophies. The phenomenon to be explained, in terms of moral philosophy, is the normative validity of commands and norms of action—which a deontological ethics conceives as analogous with the truth of assertoric statements. This positions discourse ethics as a cognitivist ethics that answers the question of how to justify moral norms. Formalist ethical theories provide some rule or procedure that explains how something is to be looked at from the moral point of view; one could, for example, refer to John Rawl's "original position" or George Herbert Mead's "ideal role taking." Kant's categorical imperative acts as a principle of justification that distinguishes between valid and invalid norms in terms of their universalizability. Discourse ethics remains formalist in replacing the categorical imperative with the discourse principle (D) that provides only a procedure, practical discourse, but no substantive guidelines. Finally, discourse ethics remains universalist, and critical modernist, because it retains the central intent of Kant's categorical imperative within the principle of universalization (U).

Application

Discourse ethics is grounded in argumentation; hence it is open to empirical investigation. Since the publication in English of Moral Consciousness and Communicative Action in 1990 and Justification and Application—Remarks on Discourse Ethics in 1993 and its influence on subsequent major works on democracy, political theory, law, religion, political economy, and cosmopolitanism, much theoretical

debate has occurred among theorists of morality, ethics, religion, justice, democracy, globalization, communications, politics, political economy, and law. Empirical work is in its infancy, but if the appropriation of Habermas's earlier work on communicative action by scholars in the social sciences is any guide then the range of possible applications of discourse ethics to substantive issues in a globalized world is vast.

One recent example is Rebecca J. Meisenbach's application of discourse ethics in exploring organizational communication in a case study of the American Red Cross's (ARC) handling of its Liberty Fund. This fund was created after the September 2001 attacks on the United States. Donations poured in, but questions almost immediately arose as to how such donations were to be used. In late October, the CEO who initiated the Liberty Fund (which had received over \$500 million at that stage) resigned amid rising negative publicity, including a subcommittee meeting of the U.S. House of Representatives, as the public and donors claimed they had been misled about who were to be the recipients of the fund; that is, victims and families of victims of the September attacks or other ARC clients. Meisenbach subjects various definitions and conflicting interpretations of ARC communications to critical analysis by identifying validity claims in terms of discourse ethics and by determining who could possibly be affected by drawing on the universalization principle (U). The "monologically" created Liberty Fund is contrasted with the non-ARC-related September 11 Fund; the latter viewed as responding to problems and donor concerns much more quickly, dialogically, and openly than the former. Moral rightness and justice are placed here at the center of case study research and are shown to be capable of providing both an explanation of how such organizational difficulties arose and, perhaps most interestingly, how they could have been avoided.

Critical Summary

Discourse ethics draws on two key assumptions: (1) that normative validity claims have cognitive meaning and that they can be treated in a manner analogous to truth claims and (2) that justification of moral norms or commands requires that a real

practical intersubjective discourse takes place in contrast to the monological form of Kant's categorical imperative. Grounded in argumentation, many avenues of empirical investigation from the methodological perspectives of participant, virtual participant, and observer are possible in diverse fields.

David O'Donnell

See also Communicative Action

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DISCURSIVE FRAME

Cambridge: MIT Press.

Defining discursive frame requires an examination of each term. In a narrow definition, discourse is the sum of a conversation, or speech, or some other unit of language communication. More commonly in academic use, discourse is conceptualized as originally defined by French social theorist Michel Foucault. Foucault focused on communication and meaning within a societal group and sees that a particular communication and meaning system is created within the group by objects, ritual, and the privileged: what the members of the particular group can talk about, where and how they can talk about it, and who can do the talking. With these limitations on the particular group culture, a discourse evolves as a system of thought reflexively created with particular ideas and beliefs, actions and practices, attitudes and preferences, and the subjects and worlds these systematically construct. Discourse is assumed to belong to or at least reflect a group or segment of society and is significant both by what is said and what is not said. Consequently, one commonly hears references to feminist discourses, or liberal discourses, or postcolonial discourses, or racialized discourses.

Within a particular discourse participants can make choices, sometimes subconsciously and sometimes strategically, about how to "hear" something or how to "say" something. This can be called *framing*. Erving Goffman set the foundation for current sociological and media concepts of framing with his position that unconsciously developed cognitive schemas or structures shape the way individuals perceive and represent reality. These frames, or cognitive perceptual structures, develop through communicative processes.

Conceptual Overview and Discussion

George Lakoff and Evan Frisch pointed to an instance of very specific strategic framing of discourse, namely, the choice by the Bush administration following the events of September 11, 2001, in the United States. The event was at first called a *crime*, and a narrative and response strategy could have been created on the basis of the crime frame. However, the Bush administration consciously rejected the crime frame and chose to use instead a war metaphor: the "War on Terror." A *frame* in this perspective refers to the packaging of a rhetorical message in a way that particular responses will be encouraged and others discouraged.

Discursive frame can be looked at as "framing discourse," as in the case of the response to the attacks on the World Trade Center and the Pentagon on September 11, 2001. Within the already-particular and limited discourse of American political rhetoric, a specific choice was made to frame the response in a certain way. In the music research example provided in the next section, elite performers seemed to use a selective frame within the unique discourse of music.

Application

A characteristic of case study research is inherent in its name: The focus is on a case. Often the specific case involves a group of people constituted in a particular way that makes it qualify as a case. Given what has been said about discourse and about framing, it is logical to assume that in many cases there will be a unique discursive frame. This means that the case study researcher needs to be taking discourse into account in the research.

For example, if a researcher were to construct a case study within a university department, knowledge of the discourse frame of the department might be crucial to certain questions, as evidenced in the following true incident. A few years ago, a professor was offered a position in a university, and while he was making plans to purchase a house and relocate his family he was asked to present a lecture that he was doing on a university tour. The lecture, duly delivered, presented a position critical of a major donor to the department. Within 2 days, the offer of the position was revoked. When asked whether the donor had put pressure on the administration, the answer was "There was no communication with the donor." There did not have to be. The discursive frame within the department did not allow discourse critical of the donor. Everyone "inside" knew that and responded without any overt complaint from the donor. The department had created subjects and worlds in manner described by Foucault.

There are two ways discursive frame can enter the research. The first is as a possible barrier to in-depth interview responses. The discursive frame limits what participants may tell you in conversation or interview, and a researcher may need specific strategies to breach the discursive frame and allow the interviewee to speak the unspeakable, to acknowledge denied perspectives or experiences, and to shape interpretations critical of dominant discourse. This was illustrated in the research of Linda Cameron and Lee Bartel.

Cameron and Bartel undertook a research study examining the conditions of learning for musicians. Asking for written, anonymous, personal narratives of memorable experiences with music teachers, they discovered that many people had negative experiences with lasting effects. When Bartel and Cameron began a second study involving interviews with elite performance teachers, they encountered what seemed to be a unified positive narrative about how wonderful music is and how rewarding it is to be a musician. No one talked about tyrannical conductors; or egotistical,

abusive teachers; or the psychological hardship of thousands of hours of solitary practice. What they encountered was the discursive frame of music education.

The second place for discursive frame is a methodological one, as discourse analysis or frame analysis to explore the discourse itself. For example, Maura Kelly described analysis of discursive frame in her research of teenage sexuality discourse. She started with the premise that her interviewees would use three metaphors (gift, stigma, and process) related to virginity loss and that these metaphors were products of specific discursive frames. Her research then defined these research frames as (a) abstinence—the discourse that constructs teen sex as immoral; (b) urgency the discourse that constructs sex as a pleasurable activity and as essential to the consolidation of gendered identity; and (c) management—discourse focused on the management of risk (physical, social, and emotional), especially with regard to contraception.

Furthermore, to analyze discursive frame is to put the discourse into a context, to compare it with other, related discourses. As well, focus can be placed on a specific discourse community—perhaps as a case itself—of which a person is a member. A person may well be a member of several discourse communities and move among them quite consciously—effortlessly or with difficulty.

Critical Summary

Given the prominence and dominance of the text, spoken and written, in qualitative research, discourse awareness and discursive framing must be considered an important methodological and procedural dimension. It also has the possibility of being a highly productive analytic lens.

Lee Bartel

See also Discourse Analysis; Rhetoric in Research Reporting

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DISSERTATION PROPOSAL

A dissertation proposal is a plan and the means by which a student systematically documents why a research problem is worth investigating and how that can be done appropriately for completing a dissertation. Most universities in the Western world require a research dissertation or thesis proposal to be submitted for approval if a student is enrolled in a graduate research—based degree. That degree may have a coursework component as well as a requirement to complete a dissertation. In some instances, the degree has a research-only requirement. Some universities require a proposal to be approved before a student's enrollment is confirmed. An approved proposal ultimately is a foundation document for the dissertation-level

research. In what follows, important aspects of a dissertation proposal for case study research are considered.

Conceptual Overview and Discussion

A dissertation proposal outlines key elements of the student's proposed research from its inception until the production of the final dissertation draft, which will ultimately be submitted for examination. The student is making, in his or her proposal, an underlying argument about a research problem or issue. Until a proposal is formally accepted by the university, the student is usually not able to begin work on any field, laboratory, or clinic-based research that will form the basis of his or her dissertation.

Just as there are numerous ways to conduct sound research, there are many approaches to proposal writing. Most universities offer general guidelines for doing so that are augmented by specific requirements from each of the faculties. To be sure, there is no universally accepted way of developing a research proposal. Developing a sound dissertation proposal may take successive revisions that, although initially time consuming, may produce a better study and save time over the course of the research. It is not unusual for some students to have to resubmit a proposal a few times before the proposal is accepted. Expectations about the design and contents of a dissertation proposal are usually set out explicitly and implicitly by each university or by individual faculties. For example, there may be a requirement that the proposal not exceed 20 pages in length. There also may be a nonnegotiable expectation about a research writing style or referencing system, for example, American Psychological Association style. By contrast, students may be encouraged to select or adapt a proposal format from a range found in the literature. Decisions about the format of a proposal are influenced by the purposes, nature, and design of the research that is to be attempted. Sometimes, the format of a student's dissertation proposal is very similar to what the first final dissertation's few chapters will ultimately be. The final format of a student's dissertation proposal is likely to be determined after deliberations with the supervisor and supervisory team.

Even if a student's dissertation proposal has been formally accepted and endorsed by a faculty, it does not contain or allow for every part of the

research that is to follow. Nonetheless, the proposal acts as a common reference point for both student and supervisor(s) to refer to over time. In that regard, a dissertation proposal provides a documented "organizational memory" of what was formally agreed to by all relevant parties. Because the proposal may also be used as a form of a working and moral contract between a student and the supervisor(s) over several years, it is important that it outline, for example, a clearly defined argument, explicit theoretical perspectives, justified research design, anticipated costs, and a time schedule. Importantly, the contents of the proposal need to show that the research will be feasible and able to be done in a scholarly manner by the student. Both the proposal and, in particular, the research, should be able to withstand rigorous scrutiny from scholars in the field.

Case Study Proposals

Undertaking case study research is often exciting and challenging. On the one hand, it usually provides a dissertation student with numerous opportunities to directly understand a complex, delineated, and contemporary phenomenon in its naturalistic setting. On the other hand, it requires considerable effort and discipline, if the case study is to be evidence based and done well.

Because increasing numbers of students throughout the world are undertaking research-based graduate degrees while maintaining full-time jobs, case study in particular may be a viable research strategy for many to consider. Oftentimes, case study can require less time for field work than, for example, ethnographic research. That does not mean case study research requires less time overall than other forms of research; however, this time prospect may prove attractive to dissertation students who are more easily able to study after work hours and less able to get extended time off from their jobs to undertake field work. In this regard, case study is potentially a highly flexible research strategy for the 21st century, especially given the emphasis on lifelong learning and organizational learning. Of course, as with all dissertation-level studies, there is an expectation that the quality of the case study research process and outcomes will be significant. Poorly designed and executed case studies can diminish the standing of this type of research.

Application

There are countless ways in which a student learns about the nature of case studies and how to design, conduct, analyze, and report on this form of research. Early on in the process, one way to heighten the prospects of case study research being sound is by using an evidence base to inform the dissertation proposal writing. Preparation and write-up considerations for a proposal vary considerably depending on the nature of the case study research that is ultimately to be undertaken. It is important that a student's epistemological, ontological, and methodological assumptions are acknowledged in a proposal. As well, the theoretical framework that underpins the proposed case study usually needs to be apparent. The research paradigm in which the student will be situated when undertaking the case study should also be nominated. It is important to be explicit about these elements, because the net effect of a student's way of viewing the world, reality, and what constitutes knowledge influences what is ultimately selected for investigation. A student's research standpoints also shape how the case study is conducted, analyzed, and interpreted.

A proposal that involves only a qualitative case study will be different in some ways from a quantitative case study proposal (see examples given in the following paragraphs). A mixed-method case study proposal will likely adapt aspects from both qualitative and quantitative research domains.

Example 1: Components of a Qualitative Dissertation Proposal

Introduction: background, the problem, purpose, aims, theoretical and conceptual frameworks, study's questions, unit of analysis, potential significance, definition of terms, limitations, delimitations. Literature review, Methodology: justification for design and methods, field setting, sample, ethical protocols, data gathering methods (interviews, document appraisals, observations), trustworthiness, validity, reliability, triangulation, data analysis, timeline schedule, budget. Conclusion, References, Appendices: ethics applications, ethics approval letters, sample letters of invitation, semistructured interview guide, observation rubric.

Example 2: Components of a Quantitative Dissertation Proposal

Introduction: background, purpose, aims, problem statement, research question and hypotheses, unit of analysis, significance, definition of terms. Literature review, Methodology: design, theoretical stance, instruments, sample and selection of sample, statistics, ethical considerations, procedures, data analysis, time frame, budget. Appendices: ethics applications, questionnaire.

Ideally, a proposal should show that the student has a detailed grasp of the sequencing and organizing involved in any field work component of the case study. This includes having an understanding of ethical ways of conducting research, knowing how to perform document analyses, interviewing and observing participants, and developing a system for participant checking of tentative findings.

As Robert Yin has long identified, explanatory and exploratory case studies have the potential to produce theory. This is likely to render those types of case study very attractive to dissertation students if there is an expectation that a study should add knowledge to a field. Undertaking a descriptive case study may be inappropriate at a dissertation level because of the inability to develop theory from such research.

In the social sciences, qualitative case studies that are undertaken from an interpretivist researcher stance are increasingly common. As many of Sharan Merriam's case studies show, these investigations seek to identify meanings that participants have about a context, event, individual, group, or phenomenon. In this paradigm, the researcher analyzes triangulated data inductively to create rich insights that reveal a deep understanding of the unit of analysis within the context in which it exists.

Unlike some types of research, case study can be developed by researchers from disparate paradigms. Ideally, judgments about the clarity, trustworthiness, and ethical nature of a case study proposal will be formed in light of relevant evidence. For example, what may count as trustworthiness in an interpretive qualitative case study is not likely to be suitable in a positivist-informed quantitative case study. How, and the extent to which, validity and reliability within each of these case studies are achieved is likely to differ.

Critical Summary

In effect, a proposal offers an argument to convince scholars about the usefulness and viability of the intended research. It is expected that the logic that underpins the proposal is an outcome of thorough preparation by the student. The proposal should show that the student has understood and chosen a theoretical framework, design, and methods that cohere to enable a credible, significant, and fascinating case study to be produced.

Helen Mahoney

See also Collective Case Study; Multi-Site Case Study; Research Proposals

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DOCILE BODIES

The term *docile bodies* was developed by French social theorist Michel Foucault in his book *Discipline and Punish* to help understand a shift in the way that power was exercised over subjects/citizens beginning at the end of the 17th century. Instead of a violent taming of what might be called the "wild body" of the deviant, institutions and practices of social control undertook practices aimed at observing, documenting, and cultivating reflective, penitent, and, most important, self-regulating subjects.

Conceptual Overview and Discussion

Foucault's Discipline and Punish is fundamentally an account of the way power shifted in the 17th and 18th centuries away from the external discipline of the body (e.g., torture) toward various forms of internal discipline that involve the compliance and active participation of the subject. Foucault's account begins with a case study description of the torture of the criminal Robert-François Damiens to illustrate the apparent brutality and ultimately depict the strangeness of these kinds of practices to the modern reader. He then goes on to show how the relatively rapid movement away from these kinds of disciplinary practices toward those of the regulated life is characterized by the 19th-century prison. In other words, the development of humane institutions" had less to do with softening the treatment of deviance than with the efficiency and effectiveness of compelling the deviant to develop what Hans Gerth and C. Wright Mills called "internal whips."

There has been considerable misunderstanding of what Foucault meant by docile body. Often this is interpreted to mean that bodies are constrained and restrained in contemporary prisons through a kind of brainwashing. This critique misses the central point that the docile body is a productive body in the sense that it is carefully taught how to appear and how to behave rather than being left in what might be considered a "wild" state only to be brutalized when it gives offense to power. The production of the docile body in Foucault's analysis is not a body that does not move or that is inactive in any real sense; instead, the docile body is one that is under the control of its possessor in alignment with norms and more or less subtle forms of regulation that are learned and developed through training rather than through the application of external force. The idea of biopower, or control of the body, refers to those knowledges, practices, and training regimens that educate the subject about how to appear and act.

The docile body is not marked, broken, or brutalized; in fact, it is the intact and healthy appearance of the body that has become an embodiment of an important sign of the power of regulation. Indeed, the regulated body takes on the appearance of what we have come to call "healthy" to the extent that regulated bodies are understood as representing the way that people are naturally supposed to be. The regulative moves that have

produced this body are thus obscured as regulation and assigned to nature. Power, then, is applied in multiple and subtle ways by the acting subject rather than through external means of control that Foucault exemplified in his discussion of torture. We come to desire self-regulation, for example, in exercise regimens, health literature and discourses, or through reading gendered men's and women's magazines. Although in Discipline and Punish Foucault used the idea of "normalization" to describe this general phenomenon of control, he later called this disciplinary power by the name of biopower. Biopower, then, marks an important shift from the application of restrictive force to the production of a reflective self. Power, then, is productive, multiple, and situational rather than coercive, uniform, and centralized. Knowledgeable subjects internalize and reproduce through disciplined, thoughtful, practice constructions of the self that themselves reflect knowledge about what is proper, correct, educated, sophisticated, and sane.

One of Foucault's most important contributions to social thought is the way in which he has demonstrated how conceptions of each of these categories of civility, decorum, propriety, and health are generated discursively as containers of power. He did this by documenting the rise of new 18thcentury institutions such as prisons, modern schools and hospitals, and asylums as spaces in which individuals could be grouped not for control and repression (although his accounts never sugar-coat the repressive foundation of these institutions) but instead for "correct training" and internalized discipline. Because of its focus on the multiple ways that power is enacted and negotiated, Foucault's work has generated renewed interest in the social sciences and humanities in microanalysis and in the power of case studies to illustrate the mundane production of power by ordinary social actors.

Application

Training and surveillance were essential to the process of correct training and the production of docile bodies. Although the routines of institutional discipline were key preoccupations in his early work, Foucault was also very interested in the way that power is spatialized. The architectural technology of Bentham's *panopticon* served as the principal physical means through which the docile body might be produced and monitored. In this ideal type

architecture of control, the inmate of the prison was removed from the isolation of the dungeon and placed within the well-lit, totally visible cell. Each cell in the panopticon was oriented in a circular pattern around the central guard house in such a way that a single guard could see every part of each individual cell. The body of the prisoner was therefore on display at all times and available for assessment and correction. The ideal prison was renamed penitentiary, a place of penitence where the inmate would be taught to reflect and to develop a personal understanding of correct behavior and, most important, to adopt the attitude that it is his or her responsibility to understand and improve. The ultimate goal is an intuitive normative understanding, not the memorization of rules. This, in a sense, sets the tone for future humanistic developments such as progressive education that understands children as knowledge constructors rather than as receptors, or contemporary visions of proactive healthcare as the responsibility of each person. Foucault saw each of these as yet another instance of biopower.

These modern institutions also provided study spaces for nascent disciplines and their aligned professional practices, such as psychiatry, psychology, pedagogy, criminology, and social work, to come to know their subjects and generate new and deeper knowledge about them. In this way the disciplines of the human sciences came to construct a vision of humanity while at the same time mapping the multiple ways that individual social actors could deviate from the idealized human condition.

The new locus of power was thus in the body of the prisoner rather than in the instruments of physical violence, restraint, and physical control. Rather than disabling the body through external violence, the body would be controlled from within. In this sense Foucault's work fits in with the work of other social historians, such as the Marxist E. P. Thompson, who studied the cultural changes that were associated with the transition to market capitalism in Europe. Within the context of a modern society in which coordinated, productive activity was at the center of the industrial complex, education, broadly understood, became essential to the development of a labor force that could be counted on to work regular hours and in tandem with other participants in, for example, factories. The training of the body to work repetitively, automatically, and accurately became an important component of industrial production and progress. It was also crucial to the production of the modern democratic citizen, whose choices and agency needed to be brought within limits and set toward coordinated ends.

The main difference between Foucault and Marxists in their examination of the production of the docile, or disciplined laboring body is the way Foucault conceptualized ideological mechanisms as the locus of power. He saw the production of knowledge as central to social production and reproduction more generally. Foucault paid little attention to the way that large-scale economic forces operate in social space. This opposed the Marxist-inspired vision of the fundamental or infrastructural importance of material forces of production which themselves generate ideological forms.

In his later work Foucault became more interested in everyday life practices and the way that power worked as a productive force to delimit and conceptualize core features of modern self-production. There is an obvious connection here between the proliferation of discourses around the production of the self, the multiple locations in which self work is done (from prisons and schools to shopping malls, gyms, and spas), and the need for specific micro-case studies of how power works as a distributed and differentiated rather than a centralized phenomenon. This interest in biopower moved in two directions: (1) toward the constitution and regulation of populations (governmentality) and, simultaneously, (2) toward the intimate self-governance. His interest in biopolitics shifted from the institutional regulation of deviance toward the discursive production of desire and what he called the "care of the self." This marked a more fundamental shift inward as Foucault investigated the terrain of normalized human conduct and the persistent resistance that shapes and reshapes discourse around sexuality, intimacy, and self-understanding.

The focus, then, is on the more contemporary preoccupation with the production of the body as an object of desire, experience, and cultivation. This shift parallels the transition from the institutional density and power of the state and the productive enterprise (industrial capitalism) that began in the latter part of the 19th century toward the importance of information, the mass media, network society, and other contemporary change forces placed under the rubric of the knowledge society. This general approach to social analysis

has been enormously influential in recent decades in a variety of spaces. For instance, Mark Poster analyzed the way that Foucault's work can support understandings of emerging information technologies and the way in which knowledge is a principal instrument of power. Another example is found in the work of urban sociologist Manuel Castells, who has developed a detailed and profound analysis of the way that self-production and identity questions have come to assume a critical importance in contemporary societies.

Critical Summary

In the end, Foucault saw no clear escape from the inevitable play of forces and ideas that institute power at the very center of all social life. Every utopia, every solution, becomes yet another vision that constructs an idealized picture of human nature or correct conduct and at the same time a new set of others, monsters, criminals, and deviants. The idea that power can and should be seen as a productive social mechanism was revolutionary, and it marked an important turning point in historical studies toward microanalysis and social histories of the details of everyday life and mundane institutional practices. Fundamentally, the body is the location of power, and Foucault's concept of the docile body represents one of the first and most influential ways of theorizing the ways in which biopower operates.

An important methodological implication of Foucault's work as well as the work of other poststructural theorists is the idea that structural explanations of social institutions and processes are inherently oppressive. Because of this attention to microsituations we see the way that power operates, not as a structural foreclosure but rather as a dynamic process of dominant strategy and resistance tactics. In this sense, Foucault's own broadly conceived case studies of prisons, asylums, and hospitals demonstrate how the docile body is never perfectly produced. As he pointed out in an interview in which he used the extreme example of the Nazi concentration camps, resistance is always present and always possible, even in the most oppressive social conditions.

Michael Corbett

See also Agency; Deconstruction; Discourse Analysis; Governmentality; Poststructuralism; Power/Knowledge

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DOCUMENT ANALYSIS

Documents, as a record of human activity, provide a valuable source of data in case study research. Along with interviews and observations, they comprise one of the main forms of data sources for interpretation and analysis in case study research. Document analysis can provide a window into a variety of historical, political, social, economic, and personal dimensions of the case beyond the immediacy of interviews and observations.

Conceptual Overview and Discussion

Documents can include a wide variety of materials relevant to the case under study. In Sharan Merriam's view, documents comprise a variety of written, visual, and physical material, including any artifacts that can shed light on the case. In this view, documents are by-products of human activity that "document" their activity over time. Because these documents have been created through ongoing day-to-day activities unrelated to the present research they can provide authentic records that shed light on multiple facets of the case and can provide clues that may be useful in framing interview questions and observation protocols. Documents can be categorized into three main types: (1) public records, (2) personal documents,

and (3) physical materials. A fourth category of documents are those created by the researcher, such as field notes and a research journal. Many of these documents may be created and/or stored in an electronic environment.

Although at times there is a clear distinction between public and private documents, at other times the line between them is quite blurred, creating a continuum from completely public, to semipublic, to semi-private, to completely private. Personal documents can now be found anywhere along this continuum. With burgeoning online venues such as personal Web pages, Facebook, and numerous blogs, the personal easily becomes available to the public. Traditional public records include anything that is available for public use, although some of these are more readily available to the public than others. These documents include (but are not limited to) census data; newspaper articles and archives, maps; court documents; wills; company and government policy documents; manuals; handbooks; photographs; magazines; books; brochures; and advertisements, from billboards, to flyers, to television commercials. The myriad range of public documents available requires creativity on the part of the researcher in identifying which might be most relevant to the particular case. Along with researcher creativity, research participants can point to valuable documents the researcher might not have thought of, especially those that are not completely public. Thus, whereas documents can help lead to good interview questions, interviews can also lead to new document sources. This category could include semi-public documents, such as employee contracts, manuals and policy handbooks, minutes, payroll lists, health records, and so on, to leads on personal documents, such as photo collections, family histories, diaries, letters, scrapbooks, videos, and other electronically stored family or individual records. This category of documents, by representing accounts created by individuals or particular interest groups or organizations, can provide valuable perspectives on the case that likely will not be found in documents originally created for the general public. Finally, artifacts and physical traces as documentation of human activity can provide rich data sources to analyze.

Document analysis begins as documents are identified and/or selected on the basis of their

usefulness or relevance as data for the particular research. A parallel step is to validate the source and authenticity of the chosen documents. Knowing the source of documents enables the researcher to determine their likely purpose or intent as well as determine the perspective from which they were created. Merriam suggested several questions researchers might ask about the authenticity of a document:

- What is the history of the document?
- Is the document complete, as originally constructed?
- If the document is genuine, under what circumstances and for what purpose was it produced?
- What were the maker's sources of information?
 Does the document represent an eyewitness
 account, a secondhand account, a reconstruction
 of an event long prior to the writing, an
 interpretation?
- Do other documents exist that might shed additional light on the same story, event, project, program, context? If so, are they available, accessible? Who holds them?

Merriam comments on the importance of distinguishing between primary and secondary documents. Primary documents tend to be those created by people closest to the phenomenon under study. Secondary documents are those created by those not directly involved and perhaps at a later date. It is possible for a document to be either a primary or a secondary document depending on the purpose of the research. For example, a photographer's pictures could be primary documents in a study focused on the photographer but secondary documents if the objects or people in a photograph were the primary research focus. Once the selected documents are located and authenticated, they need to be copied and/or photographed. These copies of original documents can then be sorted into appropriate categories, and further analysis can be carried out.

Document analysis in terms of who has ready access to or who created which documents in a case can lead to insights about relationships among case participants, power structures, and communication patterns. Documents can be analyzed in terms of demographic and historical information

to provide background to a case. They can be compared for confirmatory or contradictory information that can illuminate new understandings or further questions to pursue. Content analysis, which has been a staple of document analysis, can take the form of highly structured searches that count the number of times particular words or phrases are used. Jonathan Hull described evaluation processes for computer programs designed to perform various document analysis functions on large volumes of data such as checks. The constant-comparative form of document analysis described by Robert Bogdan and Sari Biklen is a much more fluid search for themes or meanings that recur in a variety of documents leading to categories. Depending on the research focus, researchers may be searching for descriptive information, may do a comparative analysis of different perspectives from different sources, or may do a critical analysis that would uncover hidden sources of power.

Application

Document analysis is a helpful research tool that can be used in as wide a variety of ways as a researcher has the imagination to create. A few examples are suggested here. A variety of documents, including such items as letters, sketchbooks, original artwork, and critics' reviews, could provide the total data source in a case study of the evolution of an individual artist or a particular art movement. A combination of public documents, such as newspaper accounts and public notices, could be compared with a variety of personal journals, photographs, and letters to tease out some of the contradictions and complexities of a particular case. Kelly Asmussen and John Creswell, in studying perceptions of campus safety after a gunman attack on campus, discovered an increase in newspaper advertisements for and registration in self-defense classes. Through records kept by the campus bookstore they identified increased sales of mace and whistles, and a sharp increase in cell phone purchases, especially by women, was noted. These documented changes, when compared with those before the gunman incident, pointed to a dramatic increase in safety concerns. A document such as a map or photograph could be used to stimulate interview responses. A high school social studies teacher had students compare copies of high school yearbooks from 1948 up to the present day to examine shifts in the school community's gender and ethnic composition, shifts in the kinds of extracurricular activities, and shifts in various awards given, which can mirror changes in the surrounding community. A critical analysis of promotional brochures for an institution or business can lead to the identification of belief systems that may lie below the surface of espoused purposes.

Critical Summary

Because they were originally created outside of the scope of the research, documents can provide a rich source of data pertaining to the day-to-day activities surrounding the case. Documents can also provide historical information that lead to a better understanding of the case in question and can provide a diverse wealth of information from a wide variety of sources. This wealth of possibilities creates several issues of which researchers need to be aware. Researchers need to be cognizant that because different documents were created for different purposes, they will present different points of view. To limit bias, researchers need to have a wide enough variety of documentary sources to provide a reliable research report. On the other hand, much of the documentary data may be irrelevant to the present research purpose, and the sheer volume of documentary data can become overwhelming. Thus, researchers using documents as a data source need to both broaden and narrow their scope, ensuring that they use documents that provide a rich variety of information focused on their particular research purpose.

Margaret Olson

See also Archival Records as Evidence; Autobiography; Content Analysis; Documentation as Evidence; Secondary Data as Primary

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DOCUMENTATION AS EVIDENCE

Documentation refers to the variety of written, audio, and visual artifacts that exist within natural, nonlaboratory contexts before a research study is initiated. Documentation has traditionally been associated with historians, for whom it is the main source of evidence, next to oral history data. Qualitative researchers across diverse social science disciplines (e.g., anthropology, business, economics, education, political science, and sociology) also collect documentation, either when direct observation is not possible or as a supplement to direct observation.

Conceptual Overview and Discussion

Documentation can be categorized as written, audio, or visual. Written documentation may include media or government reports; minutes, policies, or other procedural documents; letters; memos; and diaries. Documentation may also be auditory, consisting of interviews, videos, and radio and television scripts. Visual artifacts include photographs; maps; and material resources such as tools, instruments, and everyday utensils.

Documentation can be further classified according to accessibility and origins. *Open documentation* is accessible to the general public, usually through archival repositories or publications. Open documents may include correspondence, minutes of meetings, reports, and committee papers. In some cases, however, repositories may restrict conditions of access. Information from medical and personnel records is often protected by *restricted access* because they can present the researcher with ethical concerns. "Restricted" designations often require researchers to use pseudonyms or to aggregate findings to maintain individuals' privacy.

Closed documentation is usually accessible to only a small number of people who tend to be the originators of the material. This category pertains particularly to nonarchived items residing in familial collections.

Documentation can be categorized as official, personal, or popular culture with respect to origins. Official documents are generally produced by organizations for communications or record-keeping purposes. The most commonly recognized of these are research and discussion papers published by the organization as well as day-to-day correspondence (memos, letters, files). These are usually easily accessible because they tend to be archived in repositories approximately two decades after their creation. For items that have not yet reached the 20-year mark, researchers are required to apply to the organization of origin for access under freedom of information legislation.

Personal documentation includes items generated for personal reasons (letters, diaries, family albums and genealogies). Such evidence is among the most difficult to obtain because it is privately owned. Popular culture documents are generally used for commercial purposes, including television and radio programming, such as commercials, photographs, and other objects. Obtaining access to these items requires compliance with relevant copyright laws. One of the key considerations when working with popular culture is to limit the vastness of the materials available to ensure they are manageable yet still representative.

For qualitative researchers, there are many advantages to collecting documentation as evidence. Most important, documentation enables the researcher to examine phenomena in naturally occurring, contextualized settings. Documentation can be transported and/or copied, facilitating analysis and the production of enduring records. One of the difficulties of undertaking research in which data are generated (e.g., surveys and experiments) is the potential impact of the researcher on a study's participants. Researchers working with existing (pre-study) documentation avoid the possibility of overly influencing a study's participants.

All research methods present researchers with both advantages and disadvantages, and documentary evidence is no exception. Documentation becomes problematic when the researcher is able to uncover only partial evidence because of a failure to preserve materials or a loss of items. Under these circumstances, researchers must work with tentative conclusions. As well, researchers working with documentation run the risk of not recognizing erroneous or biased information. Finally, the meaning of any documentation is rooted in context and is not always immediately apparent. Because the researcher's interpretation renders material meaningful, it is important to ascertain whether items are authentic, credible, representative, and meaningful.

Application

To determine *authenticity*, the researcher must ask: Is the material genuine/original? Who created it? Where, when, and why was it created? Answers can be generated by comparing private and public manifestations of the same materials. For example, one might compare popular coverage of key World War II events with descriptions of the same events communicated in a personal diary.

Credibility refers to the accuracy of the document. Has it been tampered with or modified? Is the object representative of the time it was created? Is it likely the language, clothing, or architecture belong to the alleged era of origin? Is an intra-office memo plausible, given organizational contexts and agendas of the day?

Researchers working with documentation also face the dilemma of whether evidence is particular to a single social setting or is *representative* of a larger context. For example, can one conclude that career aspirations of young adults in a school-to-work transition program in economically depressed regions are representative of all young adults? In this regard, it is imperative that researchers consider a sample group's characteristics.

In determining the *meaning* of evidence, researchers deal with interpretation, which inevitably depends on a document's authenticity, credibility, and representativeness. Consider a researcher who is conducting a case study of an organization that has held an employee retreat. The agenda items and minutes include team-building exercises as well as proposals for reorganizing the institution. It would be unwise for the researcher to assume that the retreat and reorganization were held because of economic hardship reasons unless

other documents (e.g., financial statements) indicated financial urgency.

Critical Summary

Documentation provides researchers with a range of contextualized, naturally occurring materials when direct observation is impossible or needs to be supplemented. Written, audio, or visual evidence derived from official, personal, or popular culture is used extensively by researchers across social science disciplines. Useful as it is, documentary evidence is not without drawbacks. The effective use of documentation as evidence depends on researchers' abilities to scrutinize the material and determine its authenticity, credibility, representativeness, and meaning.

Helen Raptis

See also Authenticity; Content Analysis; Contextualization; Diaries and Journals; Naturalistic Context; Plausibility; Textual Analysis; Visual Research Methods

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Double Hermeneutic

In the field of hermeneutics—that is, interpretation, or meaning making—the *double hermeneutic* is used to name a concomitant production of meaning and meaning-making within the research process. The double hermeneutic is present in all

case study research insomuch as it calls attention to the complexities of meaning-making present within the various disciplines of the social sciences engaged in interpretive research. The concept is used to name interactions present between the text attributable to the research focus, topic, or participant and the text the researcher brings to the inquiry. These two contexts—the context of that which is being researched (often referred to as the *object of the research*) and the context of the research (often referred to as the *subject of the research*)—interact dialogically and co-inform one another within the research process.

Conceptual Overview and Discussion

Although the term double hermeneutic is frequently attributed to sociologist Anthony Giddens, philosophical constructs upon which the concept is based echo back to Martin Heidegger's notion of Dasein—interpreted here as a form of presencing—that is, to the researcher's presence within the research process. The concept of the double hermeneutic was further developed through extensions and interpretations of Heidegger's work by German philosopher Hans-Georg Gadamer and by French narrativist Paul Ricoeur. More recent philosophical and methodological examinations of the double hermeneutic include the move toward a postpositivist era in the social sciences, which situates the researcher fully within the interpretive process and demands attention be paid by the researcher (and, by extension, the research design) to the dialogical relationships operating within the various disciplines of social science research. This demand for attention to the interconnected spheres—or circles—of meaning-making, in both design and interpretation of research, leads to an increased emphasis on reflexivity within the research process. Not to be confused with self-reflection although self-reflection is one of the tools the researcher can use when grappling with tensions arising—reflexivity refers to an awareness of the discourses within which both the research and the researcher are embedded as well as to the ways in which the contexts of the research refer back, reflexively, to prior experiences and knowledge constructs. Thus, the double hermeneutic requires that the researcher tend to the dual, or double, meanings present at both the microlevels of research design and the macrolevels of situating the research within a given social science community, be it anthropology, education, history, political science, sociology, or other.

Application

When designing social science research it is important to consider that the parameters of the research context are not limited to the object of the research; instead, the research design also needs to tend to the situatedness of the researcher. Inquiry that acknowledges the presence of the double hermeneutic can use reflexivity to better grapple with the interactions of meaning-making present between subject and object, and in both the research design and in the interpretation of data.

By incorporating reflexivity in the research process researchers work to render explicit the effect of the double hermeneutic. However, there is a paradoxical element in both the double hermeneutic itself and in the reflexivity used to address it: Because both the effect and the means used to render the effect more explicit call on meaning-making within and through the researcher and the research process, one encounters a seemingly endless series of referral. In this, the paradox of endless referral creates a tension within the process of reflexivity and returns to name the effect upon which it operates, that is, the double hermeneutic itself.

An Example of the Double Hermeneutic at Work in Case Study Research

The following example illustrates the presence, or effect, of the double hermeneutic using a fictitious sketch of a case study scenario in educational research:

A researcher (e.g., an ethnographer conducting a case study in an elementary school classroom) collects data relevant to a research participant (e.g., a child learning to read) through participant observation. Subsequent to collection, the data are analyzed by the researcher to identify themes relevant to the reading process (phonological awareness, use of cuing systems, emotional responses, etc.). The researcher then situates the identified themes within the current body of literature on reading and learning to read and, on the basis of interpretations of the data, uses the results of the

case study to generate questions for further inquiry. In this scenario the double hermeneutic requires that the researcher acknowledge not only the context being researched (a child learning to read) but also the research itself (the act of defining the process of a child learning to read through ethnographic research). Because reading and research present as both historical constructs and contingent agents within such an inquiry, the research participant (the child) is not a finite object of study; instead, the child is engaged in meaningmaking, and this meaning-making produces data, which are subsequently used in meaning-making by the researcher. Because of the effect of the double hermeneutic, the researcher is similarly implicated, because the act of researching also contributes to the production of knowledge within the research context. Consequently, the presence of the researcher serves to alter the meaning-making of the researcher (the ethnographer) and the researched (the child) throughout the research process.

The researcher needs to take into account, therefore, the dialogical production of meaning within the research context. The effect of the double hermeneutic means the research context is not "meaning neutral"; instead, the researcher (an ethnographer, in this case) and the researched (a child learning to read, in this case) are both active participants in the production of knowledge and the interpretation of meaning. Because of the historical and contingent production of meanings inherent in the multiple layers of the inquiry, the double hermeneutic engages both the researched and the researcher in a continuous interpretation of meanings within and through the discourses within which the research is embedded.

Critical Summary

The double hermeneutic is an effect found in the dialogical relationships between research and researcher within social science inquiry. The presence of the double hermeneutic creates an additional space of interpretation that is neither that which is being researched nor the researcher; instead, the double hermeneutic calls attention to the interaction and concomitant meaning-making therein. Reflexivity can be used to engage some of the tensions presented by the double hermeneutic but will itself contribute to a further commingling of interpretation and meaning-making. The effect of the double hermeneutic reminds researchers to examine the discursive effects of a given research context, within which discourse and meaningmaking are produced by both the context and by the researcher's interactions and interpretations of and with said context.

Lace Marie Brogden

See also Dasein; Decentering Texts; Knowledge Production; Subjectivism

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DRAMATURGY

Through employing the metaphor of "life as theater," dramaturgical sociology is concerned with how certain understandings of reality are negotiated, maintained, sustained, and negated through human interaction. In dramaturgy, the microlevel interactions, the acts performed by various actors and actresses, are what constitute the human experience and create, rather than signify, the social order.

Conceptual Overview and Discussion

Because the task of dramaturgy is to understand social interactions, how people come to create meaning, and why people behave in certain ways, the relationship between dramaturgy and case study research is in congruence. Case study research

utilizes theoretical understandings to make sense of a particular event, situation, or narrative under inquiry. Dramaturgy, as a theoretical lens, blends with case study research efficaciously if the researcher is seeking to understand human behavior through a social constructionist viewpoint. From this perspective it is argued that humans are not construed as objects on which outside structural forces act but as empowered beings who create meaning and direct their destiny through encounters. For the dramaturgist, the common or shared reality between or among people *is* reality.

The concepts of dramaturgy were first introduced by Erving Goffman in his foundational work *The Presentation of Self in Everyday Life*. According to Goffman, people perform in their relationships with others through a process of monitoring of words and deeds, trying to control the information about themselves through masking some aspects and emphasizing others. An understanding of identity as fluid, dynamic, and agentic, rather than predetermined, passive, and stable, is essential to a dramaturgical approach.

Goffman's understanding of the self stems from George Mead's work *Mind*, *Self*, *and Society*, in which the self actively intervenes in the world and is created through social interaction rather than composed of an abstract essence. Dramaturgy shifts to a more radical view of identity in which identity comprises a series of masks of underneath which lies no distinct, "real" permanent countenance.

Roles

The central focus of dramaturgy is on the encounter of people who utilize roles, scripts, stages, props, and costumes to influence their audience in an attempt to negotiate reality. The desire for ontological certainty as an existential aspect of the human condition fuels the process of negotiation whereby people seek to make sense of social reality. Particular understandings of social scenes become privileged or deprivileged over others as both actor and audience negotiate, assign meaning, and order reality. Goffman is clear that life itself cannot be reduced to theater. It is *not* simply theater, but it is *like* theater. The expressions, symbols, and aspects of drama illuminate the process of how realities and meanings come to be

constructed in relationships. The metaphor of theater and its theatrical concepts are tools for analysis rather than instrumentally based truth claims about reality itself.

People partake in acting out different roles within society and organizations. The concept of the role is one of the important aspects of the dramaturgical metaphor. Role pertains to the particular image that a person wants to convey to others. A university professor seeks to convey an image that lets her students know she is knowledgeable in her subject matter, authoritative, and legitimate. To fulfill this role, she must attend specialized training that likely involves obtaining a doctorate from an accredited university. This is to instill the impression on future students, colleagues, and other audiences that she is set apart from others because of her training. Although the training does provide invaluable information, it also has a secondary purpose, which is to aid in the perception of credibility and professionalism.

In some form or another, paid and unpaid organizational roles (e.g., mother, banker, soldier, minister) require certain cues to let the audience know which role the person is going to be enacting. The more authentic the performance, the more believable the proposed version of reality is to the audience. Actors and actresses dramatize their actions and behaviors in order to appear convincing and to evoke the appropriate impression. However, one individual's role alone cannot create the "show." In addition to the setting, props, and costumes, the efficacy of performances by the actors and actresses in terms of scripting is vital to the play's success.

Performances and Scripts

The idea that metaphorical scripts exist that people act out implies a predeterminism, but this is antithetical in dramaturgy, which is rooted in an interpretivist paradigm. People are the authors of their scripts in their enacted role performances. Performances are the rule or code-governed activities that serve to influence the audience within an interaction. They are enacted in the context of what is deemed appropriate behavior in the setting. Performances are not always done solo, but often in concert with other like-minded actors playing the same role.

Goffman introduces the notion of the *team*, which refers to a group of people who are in confluence in order to foster a certain perception of a situation. What is required in teams is a cohesive attempt to manage impression. To do this requires defensive and protective measures or devices such as dramaturgical discipline, dramaturgical loyalty, and dramaturgical circumspection, which are revealed through performers' skillful scripting.

Dramaturgical loyalty refers to team members being able to trust each other with secrets and with maintaining boundaries between insiders and outsiders. Implicit is the understanding that performers must "act as if they have accepted certain moral obligations" (Goffman, 1959, p. 212). In other words, a member should not expose secrets or exploit compromising positions to his or her advantage. Dramaturgical loyalty involves acting in a way that demonstrates solidarity among the team members without overcriticizing and underperforming. To exhibit dramaturgical loyalty, a team member must devote him- or herself to the norms, codes of conduct, and group rules.

Dramaturgical discipline ensures successful team performances. This requires self-control, not only to uphold a sense of dramaturgical loyalty but also to perform in a way that captures the true image of the team and appears authentic to the audience and other actors. Dramaturgical discipline concerns having the know-how to "cover up on the spur of the moment for inappropriate behavior" that which is not compatible with the social and/or moral codes of conduct of a particular role (Goffman, 1959, p. 218).

A third device used as a defensive measure is dramaturgical circumspection. This involves the ability to think ahead to the future and make necessary adjustments or fashion impromptu scripts in the face of uncertain situations where the integrity of a role or representational image of a team is threatened. Unforeseen situations arise that require team members to respond to objections, challenges, and perceived threats to the version of reality a team is trying to negotiate as legitimate.

These theatrical tactics are revealed through scripts that can be written ahead of time (e.g., retail companies). In these cases, scripts can be utilized by management to control employee autonomy. Scripts may or may not be written ahead of time, but nonetheless they are often used

to control the audience's (e.g., customers at a car dealership) view of reality and to persuade the audience to see reality as the actor does.

Settings, Props, Costumes

In addition to scripting, settings, props, and costumes also aid in revealing sincere performances and enacting efficacious protective and defensive measures. Similar to scripting, settings, props, and costumes help facilitate a particular version or social reality. They manage impressions of audiences. Different roles and performances require different, but relevant, settings, props, and costumes

A costume is usually the quickest way to signal what role someone is playing. For example, the waiter in a restaurant signals that he is on duty when he is wearing the restaurant's uniform. Not all costumes are intended to cue the same symbolic meaning, and some costumes would not be appropriate in certain settings. A person employed by Disneyland wearing her uniform would not look "right" if she were taking orders from a customer at a restaurant.

Location and setting comprise another important factor in understanding dramaturgy. Goffman refers to *situation propriety* as the understanding that the meaning of an interaction depends on the context in which it emerges. Different interactions mean different things in different settings. Team members can manipulate scenery to consciously replace what appears ordinary and mundane with a sense of vibrancy—seeking to alter perceptions of reality.

The concepts of "front stage" and "backstage" are relevant to understanding setting. In scripting a form of dramaturgical loyalty to the restaurant, a waiter does not act or speak in the same manner in the kitchen after dealing with an unreasonable customer as he does when he is dealing with the customer in the dining area of the restaurant. *Backstage* refers to the special dimension of not being seen and/or heard by a given audience, whereas the audience is privy to the performances during front stage performances. By waiting until he gets to the kitchen area where he is free to vent, the waiter is preserving his image as a professional and upholding a reality that the restaurant is customer service oriented.

Finally, performances require use of props—all which can be manipulated to convey a certain meaning and understanding of reality. In enacting a dramaturgical circumspective tactic, a human rights activist might use props such as signs and barriers to defend team members from hostile protests. Costumes, props, and settings set the stage for the dramaturgical imperative "the show must go on."

Application

Dramaturgy presents an alternative to the examination of organizational practices and their resulting performance. Dramaturgy allows the researcher to explore organizational practices as a performance in and of themselves. For example, consider the common practice in organizations of creating job descriptions for each role in the organization. Instead of focusing on the means and ends, the researcher would examine the process as a performance. The creation of official job descriptions reduces the burden on employees to demonstrate on a regular basis their importance in and to the organization. Instead, this task is given to an individual or group of individuals within the human resources department. These expert players take on the performance of presenting the essential nature of the roles and responsibilities of each employee.

As an example of dramaturgical case research, Peter Manning examined the period of declining crime in New York City during the mayoral reign of Rudolph Giuliani and tenure of New York Police Department (NYPD) commissioner William Bratton (specifically, 1994–1996). The case study looked at the way the police, politicians, and media represented both the causes of the decline in crime and the strategic and tactical actions of the police. Manning examined how dramaturgical concepts could be used to detangle the tenuous connection between changes in the police force and changes in the crime rate and how the media narrative changed over time. Manning also examined the dramaturgical nature of policing and the effort required to interweave the realities and practices of the street-level officers with the often oppositional and incongruent statements and positions offered by the top-down command structure of the force. The spokespeople for the police force engaged with the media to craft the meaning of policing as a strategic, controllable, and effective tool for the prevention and management of criminal behavior. Initially, the media accepted the police narrative; however, after several controversial events (the most notable being the sexualized abuse and torture of Abner Louima), the nature of the media's coverage changed. Manning suggested that the NYPD lost the ability to manage the spectacle of crime control after this series of events, and the media shifted their focus to the dark side effects of the policing policies they once celebrated.

In contrast to the large scope of Manning's analysis, Catherine Watson presented a microlevel analysis of inmates' representations of self in Tanguay Prison in Québec City. This second example is more representative of the norm in dramaturgical analysis in that it focuses on the co-creation and representation of reality between individual actors and audiences. Watson examined the roles women in the prison were required to play in order to impress the audience of social workers and prison officials toward the purpose of acquiring access to gradual release programs and eventual freedom. Prisoners needed to follow different scripts depending on the nature of their relationship with criminal activity, with the more demanding scripts forced on the women with the more intimate and enduring careers in the criminal arts. Watson also examined the backstage activities of the prisoners in the games of one-upmanship and competition that took place away from the gaze of the prison staff and the effort put into the design of the costume required to convey the correct message of civility and proper moral bearing when in view of the audiences (hair, makeup, etc.).

A third example of case research is Iain Mangham's investigation of a large family-run business. He explored how situations that appear bizarre and contradictory to an uninitiated observer can be elucidated by understanding the purpose of the events in the minds of the actors. In this case, the scene under analysis was the weekly Monday meeting between the managing director (a member of the ruling family) and his senior managers (nonfamily employees). The managing director had advised Mangham that the purpose of the meetings was to invite discussion and criticisms of proposals and decisions to enhance the firm's

performance. The researcher was baffled by the behaviors of the nonfamily managers in the meeting because these behaviors were contradictory to the stated purpose for the meetings. The managers supplied little discussion and were reluctant to criticize one another or the decisions of family members. Mangham eventually discovered that the managers believed that the purpose of the meetings was a farce (the decisions were made by family members in the family context), and thus they followed the scripts that were in their best interests.

Critical Summary

The major critiques of dramaturgy attack its descriptive endeavors and its lack of a consistent theoretical framework. To place boundaries and systematize a particular episteme can make it oppressive and exclude alternative epistemic theories. Goffman's dramaturgical perspective, both liked and disliked, is useful for someone desiring to be able to describe and understand rather than prescribe or predict human behavior.

Angela Hope and Jason S. LeCoure

See also Interpretivism; Metaphor; Negotiated Order; Postmodernism; Postpositivism; Symbolic Interactionism

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ECOLOGICAL PERSPECTIVES

Ecological perspectives reflect an epistemological stance that places importance on the role of environments. Ecological perspectives borrow concepts from biology as metaphors with which to describe the reciprocity between persons and their environments. Ecological perspectives can be found among a wide variety of academic disciplines. Ecological perspectives are pertinent to case study research since any case study is situated in an environment in which the study's subjects are a part as well.

Conceptual Overview and Discussion

Ecology originated as a branch science of biology that examined the relationship of an organism to its environment. Beyond this origin, the ecology metaphor has attracted the attention of scholars from many disciplines outside the natural sciences. Influenced by the works of biologists on the interaction of organisms within their environments, social scientists started to engage themselves in examining human groups in a similar way. Ecological perspectives address the importance of environments in the broadest sense.

The present entry focuses on works of the two most influential scholars who contributed to the conceptualizations of "ecology." Urie Bronfenbrenner and James Jerome Gibson made great contributions in psychology and beyond. Bronfenbrenner and Gibson were hardly the first people to point out the

importance of environments in social science. However, both Bronfenbrenner and Gibson are considered to be pioneers in ecological research, placing "ecology" at the center of their academic endeavors. The concepts of "bioecological systems" by Bronfenbrenner and "affordance" by Gibson are discussed below to highlight the major theoretical tenets found in ecological research.

In *The Ecology of Human Development:* Experiments by Nature and Design, Bronfenbrenner proposes a conceptual framework for child development that focuses on the interrelationships between various environmental settings.

Affordances, coined by Gibson, are generally defined as the interactive possibilities of a particular object or environment. His interest in the optic perception of visually impaired people led Gibson to develop the notion of affordances. Gibson challenged the traditional view on vision: namely, the eye serves as a camera to capture an image and the image is transmitted to the brain. To a visually impaired person, this analogy of the eye as a camera would not work. Visually impaired people's ability to navigate is based on detecting environmental structures as revealed over time along a habitually traveled route. These distinct types of information specifying particular route properties are variable and ubiquitous, and are embedded in the surrounding environment. He illustrates the nature of affordances by listing many examples: an apple affords eating; a cliff affords falling off; a sidewalk affords locomotion. Gibson developed the notion of affordances in his more general ecological approach to perception, emphasizing that

affordances are specified by information available in ambient stimulation—the array of light, sound, and other forms of energy surrounding every organism—and thus can potentially be perceived if the organism is sensitive to this information. However, affordances are objective properties of the environment in the sense that they exist whether or not they are perceived. Thus, a situation can be described as a complex set of affordances for an individual, some of which will be perceived by the individual and some of which will not.

Application

There are a number of case studies where ecological perspectives are applied in a wide variety of disciplines, ranging from psychology, language acquisition and language socialization, development of communication robots, and identity formation to the ecology of language.

Shirley Brice Heath's work is an award-winning in-depth longitudinal study of language socialization in two communities in the rural United States. Heath documented how children learned to use language and how their uses of language established their identity, roles, and relationships among families and friends. Following these children into their schools in the early days of desegregation, she documented how their distinct ways of learning language affected their integration into academic life.

The field of identity studies is also cognizant of the need for alternative models to homogeneous, monoracial, linear models of identity development. Robin Lin Miller expresses this necessity for alternative models among multiracial and multiethnic people. According to Miller, a theory of ethnic identity development for multiethnic or multiracial people should be ecologically anchored, including aspects of boundaries surrounding social groups, principles for accommodating structural change, and rules to describe situational views of self. This factor applies not only to a particular groups' rigidity or fluidity, but also to the rigidity or fluidity of the self-views of multiethnic individuals. For example, a multiethnic person may experience herself as a multiethnic person at home, but within the environment of her Japanese grandmother, she may experience "self" as a descendent of Japan. In such circumstances, social context has the potential to affect how a multiethnic person views his or her own ethnic identity.

In 1970, Einar Haugen proposed the paradigm of "the ecology of language." The ecology of language, later called ecolinguistics, refers to a new ecological study of the interactions between a language and its environment. Ecolinguistics emerged in the 1990s as a new method of linguistic research that took into account not only the social context in which language is embedded, but also the ecological context in which societies are embedded. Pioneered by Einar Haugen, linguistic ecology or ecology of language uses the metaphor of an ecosystem to describe relationships and interaction among the diverse forms of language found in the world, and the groups of people who speak them.

Ecological psychology, pioneered by Gibson, has been extremely influential in the fields of design, arts, ergonomics, and artificial intelligence. Two very interesting applications of ecological psychology in the fields of artificial intelligence and arts are introduced below.

First, ecological psychology was applied to develop and design a communication robot. This robot, called Muu, was developed by a group of researchers at Advanced Telecommunications Research Institute International in Kyoto, Japan. Muu was designed to simulate human communication in a multiparty conversation as it moves through a human-inhabited environment. In designing and building the sociable robots, researchers embedded Muus with an intrinsic "drive" for social interaction. By shifting from an observer's view to an introspective one, we initially experience an "incompleteness" or "indeterminacy" in the meanings and roles of our actions and utterances. These become definite when grounded through social interaction. By moving around, Muu detects the presence of a human and approaches him or her and attempts to attract the human's participation in conversation. By engaging in communication with a human, in other words, being grounded through social interaction, the robot's intrinsic drive is fulfilled.

When one talks with others, one responds to their actions and carefully coordinates oneself in getting the conversation going as an interlocutor. As an adult native speaker, one is capable of such complex operations. Gibson calls this operation "perception—action coupling." Miki Goan, as an ecological psychologist, attempts to unveil the mechanism of such complex but commonplace perception—action couplings in

Japanese spoken communication by examining plays written and directed by Oriza Hirata, whose fame lies in his remarkable talent for creating realistic conversation in theater.

Critical Summary

As a result of Bronfenbrenner's groundbreaking work in human ecology, environments—from the family to economic and political structures—have come to be viewed as part of the life course from childhood through adulthood. The "bioecological" approach to human development broke down barriers among the social sciences, and built bridges between disciplines. Although Gibson himself did not explicate the notion of "affordances" fully, the influence of his work reaches far and wide, as seen in the above example. While the full potential of ecological perspectives in various academic disciplines is yet to be realized, their ongoing development is promising.

Case study research is inherently empirical and situated in physical environments. Thus, elements of ecology are embedded in case study research. Case studies of high caliber not only strengthen the case study as a research method but also promote the theoretical potentialities of ecological perspectives.

Hiroko Noro

See also Cognitive Mapping; Contextualization; Longitudinal Research; Participant Observation; Situational Analysis

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EPISTEMOLOGY

Epistemology concerns opinions about knowledge. When do we have valid and reliable knowledge? How do we know that a generalization is factually correct? How do we obtain "the truth, the whole truth, and nothing but the truth" in a courtroom or in a social scientific investigation? Epistemology, therefore, is the philosophical study of the ways in which we can distinguish between knowledge that can be considered by most experts to be scientifically true and information that is not valid and reliable. There is also a philosophical position that extends epistemology to the notion of sound common sense.

Conceptual Overview and Discussion

Many people in everyday practical situations believe that they can recognize the truth "when they see it" and do not bother with the nuances of deeper epistemological issues. However, utilization of everyday-life common sense can lead to significant errors, as in eyewitness testimony or the interpretation of hoaxes or spam and bogus Web sites online. Epistemological considerations need to be taken into account for sophisticated understanding of any research results, but they are often overlooked, as in the use of results from public opinion polls or from case studies of various kinds. For example, what is the epistemological status of case study material from a psychoanalytic therapy situation? Many researchers ignore epistemology when establishing their research design, but that makes them like the drunk searching for his keys under the street lamp though he probably dropped them in the dark. A quantitative analysis that uses variables at the categorical, nominal level of analysis often cannot be interpreted to reveal the results that some researchers would like to extract from

the data. Although many factors enter into research design, one's epistemological convictions often help to determine the types of methods and techniques that will be favored. Charles Ragin has written on this question and has indicated through rigorous analysis the ways in which many researchers make mistaken assumptions about the validity of results obtained through cross-tabulation. Though not always the case in the social sciences, those who favor a positivist epistemology are more likely to utilize quantitative methods, while those who lean to more interpretive approaches often emphasize qualitative methods. Although not universally applicable, particularly when several cases are being compared, most case study research particularly studies of single cases—tend to be interpretive and qualitative. The emphasis on interpretation of human meaning in one or a few cases rather than broad statistical patterns in a large number of cases (or a sample of the population) is an epistemological decision. Efforts to combine quantitative and qualitative research techniques often do not face epistemological issues squarely. Many quantitative researchers may discuss a few of the cases discovered during survey research or other positivist approaches, but the discussion of such cases is often, ironically, not very systematic or thorough. Case study research takes time and effort. It cannot simply be an "add on" to essentially quantitative variable analysis.

Historical Perspective

Many students and even many researchers have great difficulty with the term epistemology. To many academics it appears inexplicable. Lack of clarity is due in part to a failure to grasp the historical development of the term. To fully grasp the idea behind epistemology it is useful to have a historical perspective. A succinct general overview has been put together by Randall Collins, a wellknown sociological theorist who has examined worldviews, theologies, and philosophies historically and comparatively. His comprehensive treatment allows us to situate the Western European rise of universities and disciplines. It is only with the rise of specialized academic disciplines at modern universities, starting particularly in German-speaking Europe in the 19th century, that epistemological concerns could be radically

separated from metaphysical concerns related to theology and premodern philosophy. Philosophical inquiry became a specialized academic discipline only after thinkers like Immanuel Kant and G. W. F. Hegel separated the study of phenomena from theological and metaphysical concerns.

The history of methods and techniques in the social sciences cannot be separated from broader philosophical concerns. Epistemological innovations led to significant changes in theoretical and methodological approaches, which eventually led to innovations in more specific methods and techniques. It is not possible to have interdisciplinary research involving interpretive case studies without beginning with a solid foundation in two or more disciplines. When two disciplines have radically different epistemologies it is not possible to move beyond mere multidisciplinarity; but, when two disciplines share some epistemological similarities, then true interdisciplinarity can become a more viable goal. An interpretive sociologist and an interpretive psychologist can find some degree of common ground on the basis of a shared emphasis on interpretation of human meaning, just as a positivistic sociologist and a positivistic psychologist may find some overlap in statistical techniques such as factor analysis. Some of the cutting-edge or emerging and "emergent" work in the social sciences in the 21st century involves interdisciplinarity. But it is often not so much a matter of "thinking outside of the box" as thinking within two very similar epistemological boxes. To the extent to which 21st-century interpretive case study research can be considered "scientific" (at least in the broader sense), it must be firmly grounded in well-developed, highly sophisticated understanding of epistemological issues within disciplines.

Humanistic Scholarship Versus Modern Science

Epistemological distinctions between science and other forms of research are accepted by many academics. It is regarded as axiomatic by most university researchers that even the best scholarship is not clearly and unambiguously scientific. In English, the word *science* has come to mean a kind of activity that is clearly not "scholarship" in the strict sense. For example, if a scholar translates a Sanskrit text into French, that is scholarship but it

is not regarded as science. In German the word for science is Wissenschaft; the German word tends to allow for a much wider range of academic activities. Few academic researchers interested in interpretive case study research would deny that it is possible to make a fairly clear-cut distinction between humanistic scholarship and modern science. (Well-known 19th-century German scholars like Wilhelm Wundt and Heinrich Rickert debated the nuances of this problem and arrived at ingenious answers.) Since the 17th century, a "scientific" approach has gradually become differentiated from a "humanistic" approach. While it is somewhat anachronistic to use the terms in that way, especially since early modern science was regarded as "natural philosophy" and one of the "liberal" disciplines, nevertheless science and scholarship have gone their separate ways. In the late 20th century many critics pointed to the fallacies buried in the optimism of research conducted a few decades earlier. In the 1950s and 1960s the topic of epistemology was often ignored altogether. Feminist scholars, many of whom come from a humanist tradition, have been particularly critical of simplistic assumptions about the impact of implicit assumptions concerning gender roles. For example, if it is assumed that women cannot attend college, as was the case for many female novelists, particularly prior to World War II, then it will inevitably be the result that women's contributions to all disciplines will be viewed as less significant. A famous example is the neglect of women scientists who worked in genetics and astronomy, but we forget quite easily today how difficult it was for many women, even in the humanities and social sciences, to receive full recognition for pathbreaking contributions.

Hermeneutic Rules

If we consider the possibility that there is no clear black or white epistemological gap between science and nonscience, then we can move to a conceptualization of epistemological approaches along a continuum from extreme, lawful ("nomothetic") positivism to radically descriptive ("idiographic") humanism. Many aspects of social science can be considered to fall somewhere along that continuum, and not just in one limited way. That is, while some social science may be nomothetic and while other

aspects may be idiographic, there is a great deal of social scientific research that is neither one nor the other. Some argue that the terms nomothetic and idiographic actually represent "pure types" at the extreme ends of a continuum and that most social science research falls somewhere between the extremes, midway along the continuum. In other words, we can extend the notion of "interpretation" to cover much more than used to be meant by "interpretive social science" during most of the 20th century. With what Richard Rorty has coined the "linguistic turn" (or "narrative turn") of the late 20th century, there was a rediscovery of hermeneutics and semiotics. How do we read a "narrative"? How do we make sense of words on the printed page? While even today many people associate hermeneutics strictly with theology, the idea of systematic interpretation has been extended by writers like Paul Ricoeur. Some thinkers, particularly those who follow the Science and Technology Studies (S&TS) approach, argue that there is no clear cutoff point among interpretive practices and that even the "hard sciences" do a great deal more interpretive work when analyzing data than refereed journal articles would make one suppose. Nevertheless, it is clear that the so-called soft sciences require a great deal of interpretation of human meaning. That is what prompts many social scientists to use detailed information from a single case (or a relatively small number of cases) and eschew more superficial information from large numbers of cases studied in a somewhat perfunctory manner. The epistemological consideration is similar to the popular aphorism: garbage in, garbage out (GIGO). Yet, many researchers remain relatively "modernist" in their axiomatic assumptions about epistemological validity.

Postmodernist Epistemology

Some authors, like Norman Denzin, have referred to a crisis of representation and legitimation in social science. Postmodern social theorists argue against positivist epistemological assumptions, which makes sense to most interpretive social scientists, but they continue that line of argument to what they regard as its logical conclusion. They argue against *any* form of unthinking essentialism or narrow foundationalism. Many positivists regard such arguments as exaggerated

claims, or even outright charlatanism. Yet, many interpretive social scientists recognize at least a grain of heuristic value in some aspects of postmodernist antifoundationalism. It is widely acknowledged among qualitative researchers, for example, that generalizations have to be made on the basis of deep knowledge of situational context. both in time and in space. Nevertheless, to the extent to which authors like Michel Foucault or Jacques Derrida make arguments favoring one viewpoint rather than another, they have to have at least an implicit epistemology. The postmodernist or neomodernist position cannot end with negation. It must continue with the dialectic in order to reach an epistemological position that allows for research, including case study research. That position has to go beyond being simply a critique of premodern and modern standpoints. There has to be something "positive" in even the most negative critique if the author is going to put forward assertions about pattern and processes.

Derrida's postmodernist epistemology centers on his conceptualization of what he calls differance. He invents this new word to distinguish two meanings concealed in the French word difference: (1) a distinguishable aspect of some phenomenon and (2) the diachronic context of different meanings at different times and the "deferred" use of words and other signs. An example might be the use of the signifier "gay." When we sing "Don we now our gay apparel" we utilize the sign differently than when we discuss homosexuality. We are able to differentiate in both senses of difference. Contextualization of meaning in the use of words and other signs provides a higher level of "objectivity" than ahistorical and atemporal/acultural speech or writing. Hence, every statement regarded as factual can be a "fact" only in terms of some standard for evaluation. Derrida is regarded by thinkers like Thomas Baldwin as "deconstructing" the difference between many utterances. That is especially the case when it comes to implied dualisms. Every discourse about "objectivity" assumes its antonym, "subjectivity." When we move beyond the Cartesian subject-object dualism of the past 400 years we then also move away from "modernist" epistemology. Modernists take the concept of objectivity for granted, but the very term objectivity has to be differentiated from its opposite and contextualized historically and culturally. In other words, Derrida makes sense if we read him with an appreciation for his radical critique of assumptions that originated in the 17th century, at the beginning of the "modern" era in European and, eventually, world history.

Feminist Epistemology

Just as many thinkers reject postmodernist radical epistemological "deconstruction," there is often antipathy to feminist writers who claim that the viewpoint shared by women is distinctive from the masculine (or "masculinist" and "patriarchal") perspective. Many feminists have criticized science and the humanities, as well as the social sciences, for a lack of attention to the feminine standpoint. Women see things differently, it is argued, because they are located in a different "space" and therefore see social reality differently. Sociological theorists like Dorothy Smith have called this feminist standpoint theory. Smith advocates starting from where women are, which for the most part is at a lower rung on the stratification ladder. It can be argued that the very idea of a separate and superior feminist epistemology is logically contradictory. Cassandra Pinnick, for example, argues that feminist epistemologies that radically challenge nonfeminist epistemologies cannot resolve the conflict between a theory's stated aim and the goal of showing how it is better than rival views. That is, there is an internal contradiction. To claim that all epistemologies are relative and contextual makes it difficult to argue as well that a feminist epistemology is superior. If any particular feminist epistemology is superior, then it cannot be the case that all epistemologies are merely social constructions. If all epistemologies are merely artifacts, then feminist epistemologies would have to be mere contrivances as well. A similar circularity is often said to exist within various forms of critical theory and postmodern theory. At the same time, a strong defense of decidedly feminist epistemologies is that they have addressed issues related to epistemologies developed within a framework of patriarchal domination. The question then becomes how anyone can escape patriarchy defined as all encompassing and determinative. Nevertheless, it may be that if we carefully differentiate various types or stages of male domination historically and contextually, we can also distinguish among kinds of epistemological conviction. After all, most social scientists who are "modernists" believe that modern science is epistemologically superior to premodern ways of thinking. Even in the humanities there tends to be a view of modern science that allows for science as epistemologically different from humanistic scholarship. In the 21st century, women's voices are being heard more frequently and there has been heated debate concerning nuances of the sex divide when it comes to epistemologically well-founded truths. For example, there is continuous debate concerning the social scientific merit of separate women's studies programs. Does sex/gender make a difference in how human beings interpret data? Is there a separate and distinctive woman's way of knowing? The same basic epistemological problem also extends to nationality and citizenship, race and ethnicity, class and status, and many other social structural considerations. Can someone exercise empathetic understanding if she or he is not a full member of the community or group? How "scientific" is interpretive case study research done by someone who is an outsider, even if he or she is a participant observer?

Critical Summary

The topic is complex and cannot be summarized in a thousand words, hence the further readings below are important. Even the use of key words like *gender* or *modernity* can be subjected to epistemological concerns. Do feminists who use the word gender mean an ordinal level variable or are they mainly concerned with differences between biological women and biological men, regardless of sexual preferences and behaviors? Do postmodernists hold a completely consistent position or are there many different kinds of internally inconsistent Postmodernist epistemologies?

J. I. (Hans) Bakker

See also Interpretivism; Ontology; Phenomenology; Theory, Role of

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EQUIFINALITY

Equifinality is the concept of multiple paths to a common end state. It is an important element of general systems theory, as conceived by Ludwig von Bertalanffy in his effort to unify the sciences, and interpreted by Daniel Katz and Robert Kahn for organizational studies. Equifinality is an implicit assumption of case study research that presupposes that each organization is unique and that local details such as employee expertise, technology, and economic and cultural environments matter in the determination of organizational outcomes.

Conceptual Overview and Discussion

Systems theory assesses physical, organic, and social processes with regard to resources or inputs,

transformations, results or outputs, and recycling of resources. A closed system provides a singular and determinate path to a specific result. It implies a fixed chain of events. On the other hand, open systems interact with changing environments. By virtue of environmental uncertainty, open systems are more difficult to predict but may generate parallel outcomes from multiple trajectories, as reflected in the concept of equifinality.

There are many physical, natural, social, and personal processes that exhibit equifinality. For example, similar geological formations may arise in multiple ways. Distinct species may exhibit parallel adaptations or similar characteristics as a result of natural selection. Individuals may contract a disease or experience a psychological condition (e.g., borderline personality disorder) from different sources and contexts. Organizations may generate high-quality production through multiple paths.

Equifinality demonstrates the logical error of affirming the consequent. While Event A may produce Result B, one cannot assume that Event B would bring Result A. However, the absence of Event B should guarantee the absence of Event A. When there are multiple paths to a common result, one cannot be certain which path has been followed.

Equifinality figures prominently in Katz and Kahn's work on organizations because it facilitates diagnosis of organizational problems, and does so better than any deterministic and unidimensional analysis. Katz and Kahn deliberately situate organizational studies in the spectrum of sciences subsumed by systems theory.

Application

Organizational studies researchers have found multiple organizational configurations that lead to similar results in profitability, employee turnover, and product quality. For example, Robert Paul MacDuffie and others have described a binary path to quality in auto manufacturing. At one extreme, Volvo once produced high-quality automobiles through a system of autonomous working groups. On the other hand, Toyota developed a lean (and less expensive) manufacturing model with far less employee discretion but similar quality outcomes. The concept of equifinality within open systems theory anticipates this discovery of convergent results.

Critical Summary

Equifinality enhances the value of case studies. Causal connections cannot be casually inferred in organizational contexts. Social systems do not conform to mechanistic models of class struggle, technological change, or scientific advance. Case studies reveal the details of institutional development and illustrate the complex paths of organizational change, the multiple contingencies and outcomes.

David Carroll Jacobs and Milton Jacobs

See also Agency; Complexity; Natural Science Model; Underdetermination

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ETHICS

Research ethics refers to moral standards for research practices that involve humans. It is culturally expected that researchers "do the right thing" for fellow human beings in all their social research. But it is no longer left solely up to individual researchers to behave in the best interests of research participants or the profession. In most countries and fields, research is governed by institutionalized, documented codes, overseen by authoritative agencies or "ethics review committees" (e.g., American "institutional review boards," IRBs; Canadian "research ethics boards," REBs).

This entry is organized in three parts. Part 1 sketches typical emphases of the codes, summarizes

key rules of ethical research conduct, and forewarns of challenges in implementation. Part 2 highlights problems in organizational mechanisms managing the codes, and advises practitioners accordingly. Part 3 summarizes philosophical, cultural, and political contexts of the current normative landscape in research.

Much of this article rests on the well-developed, interdisciplinary ethics policy governing the core research community in Canada, maintained by the Interagency Panel on Research Ethics, and expressed in the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans*.

Part One: Ethical Principles and Codes

Basic Guidelines

Foundation

As the central imperative of conduct toward participants, the *Tri-Council* code asserts the primary value of human dignity in the holistic sense of guarding the physical, mental, and cultural wellbeing of the individual.

Basics

Basic rules of conduct are variously grouped and labeled, but cover these seven issues: (1) Do not harm participants. (2) Maintain their privacy. (3) Bring them available benefit. (4) Inform them about the research. (5) Involve them only voluntarily. (6) Ensure research of good quality. (7) Be honest with data and reporting.

In the strictest jurisdictions, ethics committees require a thorough summary of key components of the design, and written rationales for all elements with ethical implications, such as: purpose of the study, scientific and applied value, sampling design, modes of getting data, lists of survey questions, experimental or quasi-experimental procedures, information given to participants, mode of securing consent, provisions for protecting identities, and probabilities of harms and benefits to participants (and researchers' steps to minimize the former and maximize the latter).

Four Complications

Ethical practice is not as simple as the list implies. First, ambiguities, dilemmas, and contradictions emerge in the implementation, and "rules for breaking rules" are unavoidably incomplete. Second, rules apply in some circumstances but not others, or in varying degrees. Third, pressures frequently build to take shortcuts. Fourth, the approval process before an ethics committee is sometimes a challenge in itself. For all these reasons, every social-behavioral researcher needs training in ethical matters, or good self-education.

In Whose Interests?

Cross-pressures impinge on researchers' judgments. Which interests are to be served? In what priority? This concern takes at least three forms: (1) advancing science versus protecting personal well-being, (2) managing combinations of stakeholders, and (3) serving the profession. However, the bottom line *prioritizes the well-being of participants* in the event of conflict with other goals or circumstances.

Science Versus Persons

Motivated by commitment to truthful knowledge and desire for technical advancement, the prevalent epistemology associated with modernism assumes that improved scientific knowledge fosters progress. This impetus, however, can conflict with the wishes or well-being of persons from or about whom empirical information must be obtained. Science is ethically restricted, sometimes drastically, by cultural imperatives around legitimate actions toward persons. As a blunt example, prevailing norms prohibit imagining that individuals, in the name of science, be treated experimentally to social abuse and then entrusted with young children's welfare, yet such a design could crucially test whether and how victims of abuse pass it along.

To reiterate, persons trump science in today's consensus. Nonetheless, some forms and degrees of risk are permitted in treatment of participants. "Rules for rule-breaking" are indicated, where relevant, in the following discussions.

Other Conflicting Stakes

A study involves various stakeholders, with varying motivational mixes and power: project participants ("human subjects"), constituencies that participants represent, researchers themselves, employing institutions, funding agencies, contractual clients, politicians, and so on. For example,

researchers themselves may be concerned with balancing advancement of knowledge, delivering practical benefits to humanity or sponsors, promoting their careers, dealing with members of the team, and staying within budget. A *client organization*, commissioning a study, may constrain the project toward reaching conclusions that favor organizational vested interests. Actual *participants* may want to contribute, while "gatekeepers" for their community might object.

To manage wisely the ethical imperatives, researchers must *know* this social context and how cross-pressures can generate ethical issues (hence, practical challenges) for their work. It is smart to map these features of the case study, to consult stakeholders in advance, and to seek advice of knowledgeable colleagues.

Professional Stakes

Science depends on *trust*. Two concerns ensue: reliability of the scientific knowledge base; and the public good name of research.

First, despite checks and balances in scientific culture (rigorous training, replication, peer review, and critique), one can readily misrepresent methods or findings. Obviously unethical, under cultural proscriptions about lying and the assumption that distortions *set back our knowledge base*, dishonesty harms us all.

Second, exposure of a lying researcher undermines *public trust* in science and scholarship generally. This sets back future research by reducing the likelihood of funding or the credibility of well-researched policy recommendations. More deeply, it diminishes popular trust in the social system, hence community cohesion.

Rights of Individuals and of Groups

The liberal ideological tradition, predominant in ethics codes, emphasizes rights and well-being of *individuals*. However, in practice, rights of *collectivities* (differentiated communities) are also crucial. For instance, ethical assessment of research proposals commonly takes into account interests of those minority communities that have mobilized politically to assert their rights.

Regardless of direct pressure to avoid studying a community—or to suppress results—many researchers confront issues of whether and how to report

findings that could significantly disadvantage that community. Nate Johnson, for example, once wrote a perceptive piece on the issue of sociologists destructively "brangin' heat" upon a ghetto.

Research Quality as Ethical Concern

The scientific quality of a research project has ethical implications that are sometimes included in codes. Two reasons are cited. First, it is inappropriate to have persons invest effort—and sometimes hope—in studies that are likely to produce untrustworthy results. Second (like exposed research lies), poor research damages future cooperation with legitimate studies, just as the annoyance factor in telephone marketing has damaged scientifically motivated surveying.

Minimizing Harm

Following from the principles of "human dignity" and "welfare and integrity," the most obvious rule is the Hippocratic oath: "First, do no harm" or avoid harming people through research. What constitutes "harm" takes infinite forms and becomes murky, as the preceding discussion indicates. Like most ethical norms in research, it requires serious analysis, considerable life-wisdom, and negotiation with gatekeepers (including ethics committees). It is important to realize that harm extends to psychological threats to participants' emotional balance and selfhood, as well as to social damage through exposure of discrediting information, and to research interventions that could rebound negatively upon the cultural system of the group(s).

Criterion of Minimal Risk

The central codes of both the United States and Canada feature a standard of *minimal* risk. This does *not* designate the injunction to minimize harm (itself a requirement), but rather, a guide to *degree of scrutiny* to which an ethics board should subject proposals. Both these codes set the participant's *risks in everyday living* as the threshold at or below which research participation remains minimally risky. If joining the research would increase the likelihood or intensity of harm to the person beyond that level, then the ethics reviewers must look for offsetting safeguards in the research

design, or impose them, proportionate to the potential harm. The Canadian definition further requires reviewers to imagine how the participants *themselves* would reasonably perceive and judge the risks of taking part in the study, relative to their daily circumstances.

Criterion of Proportionality

The notion of *proportionality* is treated in two senses. One is the tradeoff between foreseen harms and benefits of a study. The second, invoked here, is the guideline that the degree of independent oversight (including initial approval by review mechanisms) be proportionate to the perceived potential for harm to human participants. Thus, perhaps, a proposal implying "minimal risk" may receive "expedited review" (a less probing check by, for example, one or two committee members).

Conditions Permitting Risk of Harm; Balancing Harms and Benefits

If we set the standard as prevention of all types of potential harm to all participants, research could not proceed. (Imagine a highway accident for a participant en route to an interview.) Thus, an implicit calculation of probabilities of degrees of various risks comes into play, placing a significant yet inescapable burden of sincerity and intelligence upon deliberations of both researchers and ethics committees.

When a project exceeds "minimal risk," how are limits set on exposure to risk? Besides "informed consent" (the first precondition) and the criteria of scientific worthiness and lack of viable alternative approaches, researchers must convince the ethics committee that greater risk is hedged by the following conditions: (a) researchers ensure that all other standards of ethical conduct are met; (b) benefits to participants would reasonably outweigh risks, or, barring this, that benefits to larger categories of people would be truly valuable; and (c) all possible steps are taken to protect participants. However, the more severe the degree and types of perceived risk, the greater the likelihood that adjudicators will reject the project, regardless of benefit, on grounds that participants' rights ultimately take precedence, and that there are prevailing cultural-historical reasons to restrict tightly the treatment of humans as fodder for science.

Protection of Privacy

Although billed as a distinct principle of ethics, respect for *privacy* is normally a practical issue in *preventing harm* to persons. When someone discloses opinions, actions, or circumstances, such information is to be withheld from others whom the participant has not explicitly authorized to know it.

Boundaries of privacy occupy two levels. Data are *anonymous* (nameless) when nobody but participants know who disclosed particular information (common in surveys). By contrast, when researchers can link data to providers, but vow to conceal identities, data are *confidential* (keeping faith with, trust). It is important to use the terms appropriately, and to ensure which form of privacy is pledged to participants.

Informed Consent and Voluntary Participation

Among ethical injunctions, *informed consent* and *voluntary participation* are perhaps most directly under the control of researchers. Simply: (a) ensure that participants clearly understand what they are getting into; and (b) prevent any coercion from influencing their consent.

How to do this, under real-world circumstances, can be more complex. Imagine the preconditions for ensuring that all participants *adequately understand* the information about the study, their involvement, and likely risks and benefits. Also, special provisions are needed for participants ill equipped to appreciate the information or to indicate free consent (very young or cognitively impaired persons, groups subject to coercion, or people desperate to gain favor). *Written* (signed) consent is considered best; where that is unfeasible, *oral* consent is permitted, with precautions.

To complicate practice further, special rules do permit studies where distorted information is given to participants in advance or their consent is not obtained. *Deception* of participants (lying to them, especially about study purposes) is permitted under strict preconditions: (a) that the study would provide important knowledge; (b) that misinforming participants is necessary to research purposes; (c) that probability of harm to participants is trivial; (d) that participants will be "debriefed" (truthfully informed and psychosocially supported) after

the fact. By extension, similar provisions govern covert research in which participants are unaware that they are objects of study (although anonymous public settings are exempted from such concerns). Ethics committees are especially vigilant about these matters.

Analyzing and Communicating

In processing data, interpreting empirically, and reporting methods, the ethical obligation is to be sincere and forthright about the full negative-and-positive spectrum of factors affecting the trustworthiness of the research conclusions: in short, to be honest.

A special pair of issues pertains to participants. First, how much information, and what type, are they entitled to at the end of the project? Codes often suggest that findings be returned to them (even in situations other than applied research under contract), at least in ways beneficial to the community, while guaranteeing protection against individual harm. For instance, it is common (where relevant) to include a provision like this in the informed consent: "If you would like to have a summary of the results, [here is what to do]." The second question is: How do we protect identities of individuals we portray in our case studies? In qualitative reports, particularly, we commonly hold up an exemplary individual, with verbatim quotations, accompanied by indicators of the speaker's position along social dimensions that typically would influence a person's views or actions. Such information helps others from the population to pinpoint the speaker's identity. Some researchers advocate revising the traits—such as age, gender, job—in ways that would not distort the findings meaningfully.

Bringing Benefit

The principle of *beneficence* (doing good) advocates striving to maximize project benefits to human beings. Researchers are enjoined to improve the lot of participants to the extent of the project's reasonable capacity. More commonly, the rule is satisfied indirectly by the yield for "society at large" and the need for quality work. Because the standard of beneficence is more elusive than that of minimizing damage to participants, it does tend

to be overshadowed by concrete and immediate concerns about harm.

Inclusiveness

Another important principle is *inclusiveness*. This is intended to deter two counterproductive tendencies of past researchers. One was to choose participants of a specific type and then to extrapolate to "people" in general (notoriously in terms of age, gender, and class). The other was to focus on improving the lot of their type of participants while recurrently neglecting the needs of other categories of people (such as the elderly, ethnic minorities, females, persons of other cultural traditions). It is essential, then, to explain and justify the grounds upon which the project will focus upon a specifically bounded population.

A rather discrepant challenge arises when the project involves researchers from one politically and culturally hegemonic population, with participants from a subordinated population. Two obligations come into play: to demonstrate that the project has the approval of participants; and to show why it is significant to the research question to target this particular population as a data source.

Conflict of Interest

Conflict of interest exists when a researcher has a personal stake in the group under investigation and the empirical outcomes could significantly affect that group's interests. Researchers should deal explicitly with such concerns, both in the ethics application and in the field work journal (as issues arise). The questions are especially germane in participatory action research, where community members join the team to study and improve their own circumstances.

Ethics and Laws

Closely linked to *ethical* considerations are *legal* concerns, "criminal" and "civil." The team must be especially diligent in tackling potential problems (and seeking legal advice) at the earliest stage.

Research ethics and legal codes occasionally come to loggerheads, with a researcher as quarry for the two competing hunters. Researchers can be jeopardized in trying to obey legal and ethical requirements simultaneously, and may be forced to choose a haven when the directives are mutually

contradictory. Likewise, a researcher who becomes privy to information about criminal acts will face the challenge of violating confidentiality. These matters are far too complex and contingent to warrant quick descriptions or advisories here, apart from a condensed forewarning. Major extant codes do provide helpful advice, but each case faces its own unknowns.

Sometimes research design and field work routines can place researchers themselves in criminal legal jeopardy (e.g., participant observation in a biker gang). (To clarify: placing participants in legal jeopardy is a different matter, and falls under "avoiding harm.") Also, the mandates of professional ethics and of the state judiciary sometimes come into conflict, presenting the researcher with a major dilemma: for example, when a subpoenaed researcher must choose between violating participant confidentiality and incarceration for contempt of court. Legislation and legal precedents remain ambiguous and variable on these matters. The only appropriate comment here is to foresee such events as well as possible in a given study, to consider all factors (including the sequence of priorities of interests of all stakeholders), and to act so as to maximize human well-being (even if far more easily said than done).

Variations by Research Design

The special issues entailed in different designs are too many even to summarize here. Within a case study, quantitative and qualitative modes of generating data invite quite different considerations. Quasi-experimental, sample survey, focus group, and participant observation techniques likewise bring out varying challenges. The best advice (besides knowing well both the core ethics material and the particular research setting) is obviously to search out treatises on, and exemplars of, ethical practices in the genre or in similar field work sites. In addition, as explicated below, practitioners who transcend the stereotypical quantitative methods are particularly cautioned to scope out the approval bodies they might encounter, in which familiarity with their methods can often be extremely scarce.

Exemption From Review

In some jurisdictions, certain designs are exempt from committee examination. Given their low ethical threat, the following may be permissible on the face of it: anonymous surveys; secondary analysis of anonymous data; observations in anonymous public places; interpreting verified information preexisting in the public sphere; suspending confidentiality for data about individuals occupying prominent public positions; testing of, or data collection about, students or organizational members, either for ordinary pedagogical purposes or for routine processes of managing the organization. Such a listing cannot be definitive. It varies formally by jurisdiction (e.g., according to research methods guru Earl Babbie, the federal requirements in the United States could effectively exempt much of social science research, while in Canada, exemption is quite rare), and informally by negotiation and by traditions of normative interpretation. In addition, certain preconditions may be attached, such as an advisory that survey instruments should include ethical pledges to respondents. Also, committees do commonly require application for every project about humans, so that they might be triaged for exemption, simplified checks, or full committee debate.

Part Two: Bureaucracy and Beyond— What to Do

Problems With Ethics Committees

Apart from contingencies of uneven expertise, individual temperaments, and the politics everpresent in group decision making, problems arise in ethics adjudication committees when members fail to appreciate the disciplinary or methodological traditions of the colleagues proposing a given project. This situation has supplied much fuel for scholarly critiques of the current institutional apparatus around research ethics. Objections have been especially vociferous from social researchers against committees dominated by medical clinicians and "natural" science practitioners, especially those schooled within the boundaries of experimental design, who may have little grasp of the perspectives of social-behavioral (and humanities) disciplines. Applicants' level of frustration has been magnified by the fact that many of the prevailing ethics codes originated from medical circles, and tend to maintain that focus, to the detriment of diverging research questions, designs, and practices appropriate to other realms of inquiry. And among social-behavioral researchers, those advocating *qualitative* procedures have been especially stymied by committees that fail to grasp the emergent contingencies and the unanticipated circumstances required in the very design of many qualitative research plans.

Stories recurrently circulate among researchers about cases where overly rigid or misplaced ethics scrutiny has snuffed out potentially important studies. Numerous researchers have testified to switching their programs away from topics likely to get a rough time from committees. Ethics applicants should investigate carefully in advance what they are up against in their particular milieu of approval mechanisms, and to strategize accordingly.

Practical Preparations for Ethics Review

Reading Up

In many disciplines of social science, the leading textbooks for introductory courses in research method will contain helpful chapters on research ethics. Clearly, especially useful sources are those tailored to the research genre of one's project, and those written in the national context(s) of the project's setting. Likewise, it is imperative to study the official ethics guidelines of the specific jurisdictions and professional associations within which the project falls.

An Ethics Inventory and Account

As a commonsense measure, it is very helpful to prepare an "ethics outline" or matrix, including all anticipated issues and how the study proposes to manage them. This not only reduces nasty surprises during the ethical approval process or during field work, but is also useful in drafting the ethics proposal itself.

Similarly, the project journal file (itself a crucial general resource, not always receiving due attention)—kept throughout the research sequence—should include notes on every matter touching upon matters ethical and legal.

Knowing Whose Approval Is Needed and What to Do

Every research team must carefully check the ethical rubrics applicable to its circumstances. A great many national states and international political jurisdictions have ethical codes for health or medical studies, but lack centralized codes for

social research as such, whether academic or applied. However, particular disciplines and organizations commonly do have them. In addition, for self-protective if not also moral reasons, any researcher is strongly advised to ensure that treatment of human participants, individual and collective, is reasonably acceptable to those participants and to those who might intervene on their behalf, regardless of the letter of the officially sanctioned provisions. It is not only institutional committees that might object powerfully to measures that researchers undertake. In the field work site itself, significant objections may emerge, and foreseeing them can make a crucial difference both to the project's final report to its ethics committee(s) and to the practical level of community cooperation around access to needed data.

At the stage of obtaining official ethics approval for the project from committees, it is essential not only to study pertinent guidelines and address the formal requirements, but also to ensure that one appreciates the unstated assumptions of the code and of its enforcers, and how to address those concerns accordingly. In a word, save trouble by asking someone in the know.

Note that a particular project—especially one done by a team—may come under the purview of two or more official jurisdictions of ethical oversight. There may be specialized committees for disciplines, levels of governance (national, local), particular organizations (universities, hospitals, etc.), multiple research sites, and special populations. Each ethics committee has its own rules, its own mix of members, and its own politics. Also, a project may cross political borders. A research team may be based in one or several places, while data and participants are found in one or more other jurisdictions. Especially when a project spans national frontiers, its directors must determine which formal codes pertain and how to satisfy the potentially multiple arrays of ethical stipulations. In the case of anticipated contrasts in cultural background assumptions of the populace or of gatekeepers, the most far-seeing project overseers will also do the necessary homework around informal expectations of acceptable conduct.

Budget and Timeline

When estimating the timeline for the project, it is essential to allow for the ethics approval process,

which is commonly overlooked during the application for funding. Thus it can be most helpful to investigate first the typical pace of decision making within the relevant approval processes.

For the rare case study with both an ample monetary budget and a controversial design, it can be worthwhile to bring in an expert ethicist.

Revising Plans

Sometimes researchers discover they must revise their design or methods after the project is under way. Typically, one is obligated to approach the ethics review committee for approval of any change that could significantly affect the potential ethical contingencies of the project. Many committees provide relatively speedy consideration of such changes.

Summary Advice

Researchers can never guarantee that participants' engagement in the project will not impact negatively on their well-being. With the best intentions and planning, some things will most likely go wrong, especially in field work. The only countermeasures are to be ever vigilant and to maintain open communication with all relevant parties.

Part Three: Wider Perspectives

Researchers on a tight schedule can relegate this last section to moments of leisure. Here the agenda very briefly addresses philosophical grounds of research ethics, alongside social, cultural, political, and historical perspectives on where we are today in these matters.

Grounding of Ethical Principles

This entry would frustrate most ethical philosophers to distraction, since it deliberately foregoes significant discussion of the complex understandings and multiple contrasting conclusions that scholars have achieved over the centuries. Those debates are far from irrelevant to social researchers, but this entry must hand the work over to other reference sources. This entry notes only two of the many nuanced answers to this single question: *On what basis are the rules of ethical research founded?*

Two very general and contrasting types of answers to this question are: *rational-foundationalist* and *social-constructionist*.

Constructionist

Either inherent "natural" rules are the mythical product of ideology or they are secondary to what actually happens, so what needs to be taken into account are the *historically and socially constructed norms prevalent in the cultural order* within which rules of research behavior are being established and implemented. This is the prevalent working viewpoint in social science, and the operational assumption of this entry.

Foundationalist

By analyzing intellectually the very *nature of things*, and especially the nature of humans and their shared living, we can eventually deduce the inherent principles of human rights and of proper conduct toward one another, and from there we can devise correct rules of research behavior. This viewpoint persists in philosophical and popular debates, and remains the stance of some scientists who consider the issues at this level.

Cultural and Political Context of Contemporary Concerns

To grasp the current norms around research, one needs a sense of the sustained humanistic and political reaction against egregious transgressions of human rights in the second half of the 20th century and the history of famously controversial cases. Details are beyond the bounds of this entry. It is sufficient to cite some of the best-known examples. The Nuremberg trials of Nazi Germans exposed human atrocities, including medical and other scientific experiments that were intensely politicized by the victorious prosecutors and provided the fountainhead of latter-day debates around research ethics. Enduring human rights and colonial independence movements in the subsequent decades, and attendant attention to other troublesome studies, brought to a crest the pressure for ethical codification and bureaucratic regulation. Among the other provocative studies, some of the best-publicized North American examples are Stanley Milgram's electroshock obedience study, testing proclivity to inflict harm upon others solely through commands to do so; the Camelot Project, involving academics in counterinsurgency research in Southeast Asia during the United States' embroilment in Vietnam; the Tuskegee syphilis study, in which black males of the

deep southern United States were denied available medical treatment in order for researchers to observe physical outcomes of the disease; and the CIA and McGill University studies of brainwashing techniques in Montreal, Canada.

A more general and amorphous challenge bears mentioning since it could impact upon a researcher's plans (perhaps especially in the United States). Sociologists speak of a "moral panic" when a normative concern so fires popular imagination that an irrational overreaction sets in. In some respects, an element of moral panic has distorted some instances of ethical research oversight. Reduced to abstractions and deprived of context, as principles tend to become in either a bureaucratic or voteseeking environment, some reasonable guidelines have been juridically transformed into absurd restrictions: witness an American court ruling that a child's selective guest list for a birthday party discriminated against certain boys that were not his friends. Analogies to this sort of thing are not unknown in ethics adjudications, and can add complications to a sometimes challenging process.

John Estano deRoche and Constance deRoche

See also Anonymizing Data for Secondary Use; Consent, Obtaining Participant

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ETHNOGRAPHIC MEMOIR

An ethnographic memoir is a nonfiction text that recounts past individual experience as representative of a particular sociocultural group. These narrative constructions convey history through a personal lens and are subject to interpretation of viewpoint by the audience and sometimes by a self-conscious author. Ethnographic memoirs are a subgenre of life-writing.

Conceptual Overview and Discussion

Ethnographic memoir usually represents dramatic or life-changing events as part of an individual's life story. This narrative accounting lends itself particularly well to case study research. The reader arrives at the text prepared to learn the wider significance of particular historical events through an eyewitness account. In this way the ethnographic memoir is a form of testimony. Such testimony has a truth value similar to sworn statements in a law court. This dimension of reportage of what someone has experienced or witnessed makes the memoir compelling literature for case study research. At the same time, this feature of observation necessarily has limits. As Primo Levi explains in his memoir of Auschwitz internment between 1944 and 1945, The Drowned and the Saved, he is capable of sharing only what he lived, which is a partial experience of the Death Camp. His insight accordingly is specific to his work as a chemist and existence in the men's section of the camp. Levi's example is telling for another reason: Levi's recollections are told after much time's passing, when he has assumed a postwar position as a Jewish Holocaust survivor, scientist, and author of his experiences. Also, as he reckons, events that may have been misconstrued at the time of their occurrence have been synthesized in part on the basis of other survivor stories and are revisited on the basis of subsequent life experiences.

Commentary by Gary Weissman about Elie Wiesel's Night, his chronicle about being a teenager in Auschwitz from 1944 to 1945, speaks to the revisionary process of memoir. In Wiesel's case, several versions of his experience exist (ranging in length from around 100 to 800 pages), and there are different translations of the shorter French version La nuit (starting in 1960, the most recent in 2006). Purporting his view as shared by other critics of Wiesel's memoir, Weissman interprets the various editions of Night according to Wiesel's implied audience: the Yiddish text of 800 pages for Yiddish-speaking Jews and the slim French text of about 100 pages for Christian readers. Accordingly, the case study researcher gleans that rhetorical aims affect even how much information-or data—is given to different presumed audiences.

Application

Not all ethnographic memoirs are so tragic as Primo Levi's and Elie Wiesel's, which reflect wartime trauma. More mundane memoirs bear on case study research into ethnography while sharing important narrative characteristics with remembrances of more extreme events. Take Wayson Choy's *Paper Shadows: A Chinatown Memoir*, for instance. Choy's memoir is spurred by his finding out from a radio talk show that his "mother," the woman who raised him, was not his biological mother. This call to Choy, then in 1995 a successful novelist aged 57, led him to research his life growing up in Vancouver's Chinatown. His memoir has become a source of "knowledge" cultivated through ethnographic research and searching his memory and corroborating previously neglected glimpses of insight through discussion with other members of Vancouver's Chinatown community.

The chapters of Choy's text are structured around inserted photographs whose significance is then explained. Marianne Hirsch interprets the evocative use of family photographs in her Family Frames: Photography, Narrative, and Postmemory. Hirsch cautions against the presumed transparency of meaning in photographs. Nonetheless, photographs enrich a memoir, which shows the protagonist reporting on experience that may be unfamiliar to the reader because of distance across time and between cultures.

Suzette Henke draws insight for her investigation into life-writing from women's traumatic accounts. Foregrounding both significant limitations and opportunities for narrating important personal events, trauma theory increasingly informs the interpretation of memoir. Trauma study highlights the void between past and present and between extreme conditions and the everyday, but also opportunities for "narrative recovery" (Henke's term) from the recurrent memory of traumatic events through life-writing itself.

Some of the characteristics of memoir are shared with other forms of retelling, such as fiction. The personal positioning of the author makes her or him into a figure like a character in a novel. Descriptive aspects are drawn out and their significance given in actions, such as might happen to a picaresque hero. But the notion of the traumatic void most especially foregrounds the way significant people and events forming a community are being conveyed, often to another constituency that has an interest in learning more about the group represented by the protagonist. The narrator's text offers a bridge toward understanding the significance of events, which

supplements data in case study research. The memoir's narrator resembles the first-person 19th-century protagonist who provides information about unknown dimensions of life in addition to entertaining the reading public.

Ghosts in Choy's book are a motif symbolizing the haunting unknown. Though he does not see any ghosts himself, he remembers his Confucian neighbors and relations claiming to. Hence the text shows Choy from age 4 to 11 years witnessing a spiritual existence that he comes to value in maturity when he is prompted by the phone-in guest to the radio show to review events as he experienced them as a child, in order to glean insight into the shadows already forming around what he had then assumed were stable, clear understandings.

The reader follows the history of Chinese Canadians through Choy's retrospective journey of remembrance. *Paper Shadows* traces his family history back to the Sino-Japanese war, and forward to the arrival of Asian males looking for wealth in the Gold Rush and as workers building the Canadian Pacific Railway, and to the imposition of the Canadian 1885 Head Tax and the 1923 Exclusion Act. His memoir reveals a system of illegal documents used to circumvent controls on immigration and citizenship status after the railroad was completed, through the Second World War, and later when it was not possible to return to China.

Historical events in memoir are given individual significance. Discriminatory practices based on the Head Tax and Exclusion Act set an exorbitant price on entry into Canada or prohibited families wanting to rejoin male workers. Accordingly, many "uncles" (usually unrelated men constituting pseudo-family among other Chinese in Canada) influenced Choy's development and especially his knowledge of Chinese custom and history. Bearing actual family lineage and having living relations in China, Third Uncle had special influence on Choy's experience of Chinese values, cultural expression, history, food, and ceremony. Choy returns to his youthful adventures with these single men, especially Third Uncle, as he tries to draw out for himself and for the reader how he came to be raised in a close-knit community as an adoptee, unbeknownst to himself.

Significant for the reader, but understated by the author, is the fact that his adoption and the identity of his biological parents were known in Chinatown.

Even his lifelong friend Larry Wong knew, but did not hazard to tell him. The title of Choy's book *Paper Shadows* speaks to the flimsiness of documents. Wayson's "mother" assumed the identity of a married woman born in Canada who died in China in order to get into the country. Wayson himself owned a certificate of birth attributed to people whom he assumed were his birthparents, which was procured from a family friend, a midwife, who could register the birth. When the Exclusion Act was rescinded following the Second World War, Choy was then in a position to enter fully and legally into Canadian citizenship, unaware that his identity was fabricated and historically contingent.

Critical Summary

Like the paper documents Choy's text reveals as discursive legal constructions, memoirs are telling personal stories that are necessarily subject to scrutiny by researchers, both in order to unravel the sociocultural and historical nuances of reported events, but also the affect of their narrativization itself. A form of life-writing, ethnographic memoirs overlap with trauma studies—bridging distance and degrees of experience through language. But not all ethnographic memoirs, such as Choy's story of a happy but naïve or uninformed childhood, are traumatic. When they are interpreted as narratives, memoirs are valuable first-person accounts that productively inform case study research into particular cultural experiences.

Sandra Singer

See also Autobiography; Autoethnography; Direct Observation as Evidence; Ethnography; Event-Driven Research; Life History

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ETHNOGRAPHY

The term ethnography has a double meaning: it refers both to a set of research methods used in field work and to the report presenting that field work, usually a richly detailed narrative account of people's everyday lives. Ethnographers develop close connections with the subjects and situations they study in order to grasp what the anthropologist Bronislaw Malinowski called the "native's point of view." By participating in people's lives, researchers develop an understanding "from within," describing situational members' lived experiences in detail and in depth, presenting the complexities of ordinary, everyday life as lived in particular settings. In many disciplines, such as public administration, public policy, and organizational studies, case study often refers to research produced using ethnographic methods, if not to ethnography itself.

Historical Overview

Where a historical narrative of ethnography's origins might begin is a matter of reconstruction and interpretation. Although widely associated with anthropology and its 19th-century European origins, other sources can be identified. Some scholars locate its roots in ancient Greece, identifying Herodotus and Thucydides as proto-ethnographers because of the extensive detail in their travel accounts. Others look to non-Western worlds. David Deal and Laura Hostetler, for example, find a form of ethnography in bound collections of 18thcentury Chinese hand-painted illustrations and handwritten texts that reveal how imperial China viewed culturally "other" populations—those minority ethnic groups living in frontier regions under imperial Chinese control. Still others oppose anthropology as the source of ethnography by pointing to its use in European colonial administrative practices and by missionaries, explorers, government officials, military officers, and local leaders before becoming identified with that discipline.

Origins aside, both anthropology and sociology have a rich history of ethnographic writing. Malinowski is widely credited with giving modern ethnography its character by arguing that its principal method of collecting data should consist of extended and immersed field work among the people being researched, preferably in their native language and in collaboration with native researchers. This established participant-observer ethnography as the expected form, replacing the late 19th-century armchair ethnography that had based its analyses on the accounts of the earlier travel writers, missionaries, colonial officers, and others. In the so-called Chicago School in the United States, anthropology and sociology were initially linked and used the same methods. As they separated into two distinct disciplines, sociology took the name participant observation for its more urban-focused studies of life within national borders, whereas anthropology claimed the term ethnography, using the same participant observation methods, for its predominantly overseas studies.

Riding the waves of colonization, decolonization, and finally globalization, ethnography has also been transformed. In the first half of the 20th century, ethnography was often used in support of a religiously and politically motivated, evolutionof-civilization theory of cultural progress. Moving away from this view in the 1950s, ethnography became the vehicle for defending a cultural relativism that stressed the uniqueness of predominantly non-Western cultures in a culturally homogenizing world. From the 1980s onward, however, ethnographic findings were increasingly used to bolster a growing cultural self-critique in the West. In this process, the classic one-ethnographer—one-field (tribe, neighborhood, etc.) approach has gradually given way to the realization that in the (post-) modern, globalized world, ethnography must evolve into a multi-sited, interpretive endeavor, as "native cultures" can no longer be restricted to the confines of single spaces and set time frames. This broadening of the field has stimulated ethnography to evolve from an anthropology-dominated research instrument into a research strategy increasingly attractive across the social sciences, and it is

now practiced by many who have no formal training in anthropology departments. These much broader applications of ethnography raise the question whether, and to what extent, political ethnography, organizational ethnography, and other "marked" forms are developing distinctive sets of ethnographic practices reflecting the settings, actors, and theoretical questions that are of particular concern to them.

Ethnographic Field Work

As with case studies, the ethnographic research process involve an interchange among evidence derived from different sources and methods of inquiry. The latter are the combined field research tools of talking to people (including conversational or ethnographic interviewing); observing (with whatever degree of participation); and close reading of documents (where relevant to the research question and setting). Research practices typically include engaging with participants in everyday talk and acts, a (participant) observing of routine activities as well as of less common rituals and ceremonies. Examples include hanging out with members of a street gang or shadowing managers in their day-to-day activities. Ethnographic research combines action (joking, working, chatting, hanging out) and proactive perception (observing, listening, reading, smelling). Using this distinctive set of methods and practices over an extended period of time, ethnographers are able to describe actors' sensemaking across a range of circumstances, looking at what people do and what they say they do.

Analysis treats the symbolic representations of the meanings of the artifacts actors use in both speech and act—that is, the specific language, acts, and/or objects that embody and transmit actors' sensemaking as they use them in creating, experiencing, and explaining social realities. These symbols include such theoretical categories as narratives, discourses, stories, metaphors, myths, slogans, jargon, jokes, gossip, rumors, and anecdotes found in everyday talk and text (symbolic language); rites and rituals, practices, customs, routines (symbolic acts); and built spaces, architectural design, clothing, and other physical artifacts (symbolic objects). Ethnographers work to make sense of situational actors' sensemaking, usually through the latter's own language and concepts

although theorized in terms of culture," "identity," "scripts and schemas," "values, feelings, and beliefs," "interpretive models of and prescriptive models for reality," and the like—in short, as "meaning making." Drawing on specific theoretical orientations, many ethnographers situate the minutiae of situational actors' lifeworlds within their wider historical and social contexts.

Although ethnographic understanding develops through "immersion" in the field, "distance" is equally as important as "closeness" for an adequate understanding of the "natives" and, indeed, becomes crucial precisely when immersion takes over, so to speak. When the field becomes strongly familiar and "ordinary" to the researcher, it becomes important to avoid getting bogged down in a myopic gaze, seeing only the things that are simply "there" to be seen. Then, ethnographers need to regenerate a basic wonder about the unexpected and the counterintuitive of everyday "normality," problematizing what they are observing in order to make what seems familiar and understandable strange again. Ethnography requires balancing the tension between an intimate familiarity with the situation and a detachment from it, being what Michael Agar has called a "professional stranger." The ethnographer is, in these ways, cast in two roles simultaneously: situational participant and observing researcher.

Meaning-Making and Ethnographic Textwork

Ethnography combines an orientation toward subjective experience and individual agency in everyday life with sensitivity to the broader social settings and the historical and institutional dynamics in which these emerge or are embedded. Drawing close to the ordinary communications of ordinary people on an ordinary sort of day while remaining surprised about it all enables ethnographers to describe the everyday lives of flesh and blood people. Like Sergio Leone's acclaimed style of filming in Once Upon a Time in the West, ethnographic texts tend to alternate extreme close-ups that show detail by portraying persons with particular facial expressions, talk, gestures, and clothes with wideangle or long shots that show panoramic views of the institutional context, the historical background, power relations, and societal discourses. Through reporting on researchers' firsthand field-based observations and experiences, ethnographic writing, as Clifford Geertz reminded us, has the capacity to convince readers that the author has truly been there. Providing detailed renderings of settings, objects, actors, acts, interactions, and circumstances, ethnographic texts place both author and reader at the scene, in the thick of things, conveying a sense of this "being there" to the reader.

In describing situational meaning-making, ethnographic research often challenges readers as well as researchers to question their taken-for-granted beliefs about the cultural aspects being studied and (re)presented. Drawing close to subjects and situations, ethnographers typically make explicit the often-overlooked tacitly known or intentionally concealed dimensions of meaning-making. Such ethnographies can, at times, have a somewhat critical, even raw—direct, unpolished, and sometimes shocking—quality, laying bare harsh and/or hidden social realities and exposing the entanglements of culture with power. Looking at the world with an unflinching eye, ethnographers may highlight the politics of sensemaking practices as they take into account the relative power of actors, the interests at stake, and the strategies pursued. To situational members, descriptions of routine, taken-for-granted ways of thinking and acting can often be both familiar and surprising, or even confronting, as they see themselves through someone else's eyes. In revealing otherwise covert aspects of social life, ethnographies may at times even fly in the face of what people would like to hear or read about themselves and their communities.

Ethnographic research and writing can be informed by different ontological and epistemological presuppositions. These range from a realist (or naturalist) perspective that positions the ethnographer as an objective observer and "knower" of naturally occurring social phenomena, to a more interpretivist perspective that sees social realities as being socially constructed, with the ethnographer as fully part of these constructivist processes. These different methodological approaches to research become evident in the written texts: Does the ethnographer build on a realist or a constructivist ontological presupposition about social realities, and on an objectivist or an interpretivist epistemological stance with respect to how these realities might be known? Realist-objectivist narratives treat the evidence presented as a fixed-stage, univocal

account that holds out the promise of mirroring social reality. Constructivist–interpretive narratives emphasize the contingency and multivocality of what is being reported, treating social realities as collectively or intersubjectively constructed in an ongoing interplay between individual agency and social structure, in and through which individuals and structures mutually constitute each other. Publications by James Clifford, Clifford Geertz, George Marcus and Michael Fisher, and John Van Maanen in the mid-1980s highlighted the extent to which ethnographic texts have, in some respect of the word, created the subjects and settings they studied. Looking at ethnography as what Nelson Goodman called a "way of worldmaking" highlights its interpretive presuppositional character. This is leading to growing attention to the rhetorics of ethnographic (and other research) texts: the ways they are constructed and seek to persuade their readers.

Interpretivism and Reflexivity

Interpretive ethnography builds on the understanding that the world that researchers study does not arrive pre-labeled and pre-theorized. This calls into play a heightened self-conscious awareness of the researcher's role in "worldmaking"—creating sense during field work, deskwork, and textwork out of the settings, events, and actors being studied. Methodologically, a constructivist-interpretive perspective increasingly expects, and even requires, ethnographers to inquire into their own meaningmaking processes. This heightened self-awareness—known as reflexivity—examines the ways in which their own persons (from education and training to experience to personalities to demographic characteristics) might be shaping the knowledge claims researchers advance with respect to their research topic: their positionality. Positionality also has a physical dimension, as location within a setting can enable knowing of one sort while restricting knowing about other dimensions. For some, especially those working from a more critical theoretical perspective, this means inquiring into issues of power in the researcher-researched relationship and the links between knowledge and power. By contrast with realist ethnographers, most interpretive ethnographers think of ethnographic knowledge as being generated in research, rather than as data being collected or even accessed, and some treat research participants as co-generators of ethnographic knowledge. In this view, research knowledge (or truth claims) is situational, co-constructed through interactions with others in social settings, and reflective of researchers' and others' positionality with respect to subjects and settings.

Critical Commentary and Future Directions

Outside anthropology, ethnographers often need to defend their methods against charges deriving from more quantitative, positivistically informed methods. These include its questionable (from that perspective) production of evidence, relying on the person of the ethnographer and the subjectivity of both ethnographer and participants, and what is seen by others as the lack of rigor, validity, reliability, and generalizability. An understanding of the phenomenological and hermeneutic presuppositions and the 100-plus years of philosophical argumentation underlying ethnographic truth claims refutes these charges handily, as writers such as Richard J. Bernstein, Mary E. Hawkesworth, Donald Polkinghorne, and Paul Rabinow and Michael Sullivan have ably demonstrated.

More practical challenges to ethnographic research today derive from two sources. Within anthropology, its traditional settings—isolated, self-contained, remote communities—are no longer as welcoming as they were in the past, and anthropology has begun to look to other fields, many of them "domestic" (or "at-home") settings, hitherto the domain of sociology and other disciplines. These include public policy and other governance settings on the one hand, and various kinds of organizational settings on the other, including high-technology firms and other corporations, hospitals and other healthcare institutions, and various educational enterprises. Whereas anthropology has long regarded ethnography in such settings negatively, as "applied" anthropology, shrinking resources in other arenas mean that these kinds of applications are likely to claim increasingly serious attention.

This leads to a second kind of challenge, most apparent today in the hiring of anthropologists to do ethnographic studies for marketing purposes (e.g., in Intel, IBM, and the like). This is not so different

from embedding anthropologists among army troupes in Iraq and elsewhere in order to produce knowledge that the military can use to improve its own performance. Both undertakings are close in concept (although not in politics) to action research, in its various forms, which calls on researchers to devise projects that will benefit those they are studying, often with participants involved from the initial research design. The ethical questions raised by these practices have yet to be worked out.

A third development emerges from changing circumstances in the modern world that challenge the received understanding of ethnographic methods. This is clearly evident in everyday technologies that have redesigned work practices. Traditional ethnography is built on researchers' face-to-face interactions with participants; but organizations, work, and political and social life today are often based on mediated interactions, whether by telephone, computer messaging, or even virtual Second Life avatars. Ethnographic research needs to rethink its assumptions in order to accommodate these changes.

Ethnography's strength is to "see the world in a grain of sand" (slightly paraphrasing William Blake), exploring and exemplifying the general through the local and the particular. As the structure-versus-agency debates continue to carve up the social sciences, the combination of contextual analysis with an actor-centered approach promises to remedy the apolitical reading and acontextual qualities of many social studies.

Sierk Ybema, Dvora Yanow, Harry Wels, and Frans Kamsteeg

See also Autoethnography; Chicago School; Constructivism; Field Work; Institutional Ethnography; Reflexivity; Thick Description; Verstehen

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ETHNOMETHODOLOGY

Ethnomethodology literally means the study of people's social, cultural, and worklives or, as Harold Garfinkel put it, "members of a local social scene." In particular, *ology* means logic and *ethno* refers to people's culture. Ethnomethodology refers to the ways people create various identifiable actions, routines, or practices.

Over the years, the case study methodology has little by little affirmed its relevance in the social sciences and started to speak with a stronger and clearer voice. A striking feature of case study is its central emphasis on the object being studied. Case studies underscore situation-specific, concrete, practical, and context-dependent knowledge. Long ago, the Greek philosopher Aristotle emphasized the value of case knowledge and the importance and influence of cases and context in the understanding of human performance. The strength identified with the case study approach lies in capturing "realities" in great detail. The detail and particularities of the case can be recognized and depicted by ethnomethodology. Thus, ethnomethodology can be used as a mode of inquiry in doing case studies. In particular, in the ethnomethodological tradition contextually grounded case studies can be successfully generated. Ethnomethodology began to be recognized as a research approach when Garfinkel, influenced by Alfred Schutz and Edmund Husserl, published his book *Studies in Ethnomethodology* in 1967.

Conceptual Overview and Discussion

Ethnomethodology is characterized by its pursuit of experiential processes of human action verbalized through language. Driven by its epistemology and ontology about reality creation, the ethnomethodological perspective offers a way of conceptualizing the everyday work life. Drawing on such understanding, ethnomethodology emphasizes everyday life and the ways in which people cognize, make sense of, and verbalize their actions and make them accountable to others. Ethnomethodology places importance on people, their settings, their communicative acts, action-creation and action-taking.

Key Concepts

Attending to human interactions and practices, ethnomethodology is predominantly concerned with the empirical study of the way in which people cognize and make sense of their work life within their environments. Garfinkel referred to the ways in which people use their own methods and capabilities of cognizing and sensemaking as *ethnomethods*. Ethnomethods privilege using one's own skills and embodied competence, for example, in various situations that involve thinking and acting processes and that occur largely in interaction and conversation. There are three key concepts helpful in building case studies and using ethnomethodology: reflexivity, interaction, and language-in-use.

Reflexivity

Ethnomethodology takes an interest in reflexivity, that is, in the reflective capacity of human actors. All actions are essentially reflexive, whether of those who are the object of the study or of those who are researching them. Ethnomethodology refers to human practices. It can more accurately be regarded as a way to reflect upon and uncover the context and the embeddedness of action. It also

reflects on time and local historicity. Historicity embeds past experiences and local history of the moment and instantiates human interaction.

Interaction

In the ethnomethodological context, ordinary people's interactions are focal. Ethnomethodologists take an interest in the much routinized and deep structure of interaction. Focusing on human interaction as central, everyday life is seen as an accomplishment. That is done in the course of making sense, acting, followed by naturally occurring talk. The key to this insight relies on people's process of making sense of talk in conversation with others. Furthermore, achieving intelligibility in interaction with others relies on a reflexive and consensual understanding of action, indexicality, and reliance on use of language.

Indexicality and Naturally Occurring Language-in-Use

Equally central to ethnomethodology as human interaction is the notion of language, and more particularly, ordinary talk: that is, language-in-use. For ethnomethodologists, meanings reflect indexicality, and are contextually grounded within social settings. Indexicality refers broadly to the type of code, grammar, or vocabulary that is shared among people in a certain country or region. In other words, it identifies with the embeddedness of language-in-use in which it is created and used. Indexicality takes an interest in the "rules" people employ to make sense of verbal interaction. Indexical properties of language-in-use may refer to something else or preconceptions and discern the logic of shared meanings, that is, words that are understandable for the members of a social or cultural group in a particular context. Language is understood as naturally constitutive of social life and strongly depends on the context and history of the place in which it is used. Ethnomethodology also seeks to uncover information and messages that are both not verbalized and verbalized. For example, to understand the meaning of a verbal expression we have to comprehend what has been said and how it has been said.

Application

The Cognitive Constituent

Ethnomethodology is dedicated to a situated analysis of human practice and interested in the

self-expression of human interaction in the course of communicative acts. It also takes an interest in how people cognize and make sense of the situations and the environment around them. Given the diversity and compatibility of positions within the ethnomethodological domain, different lines of inquiry originating from the social sciences tradition make the view of human activities and practices broader. One such view turned our attention toward the constitutive properties of cognition. Among the proponents of these lines of inquiry are Aaron Cicourel and Jeff Coulter, to mention just two. Also Garfinkel's notion of "looking" makes use of cognition, involving a site-specific collective apprehension of what is or may be accountably visible, but going beyond what is merely visible. Accountability refers principally to what people actually do and say that make sense to others. Cognizing and sensemaking are the most unnoticeable and discrete human activities associated with embodied competence that take place in everyday life. For ethnomethodology, the consensual nature of cognition, sensemaking, and action-creation are constructions existing in the mind-sets of individuals. The use of the mind-set by individuals is usually contingent on the environmental circumstances of human interaction and communication. The cognition and sensemaking that actors employ in their accounts are largely concerned with subjectivity and the individual's point of view. Cicourel pointed to the need for "cognitive linguistic concepts" that involve processes of information acquisition, storage, management, and retrieval. These ideas were developed further by Coulter, who referred to these processes as "grammars of cognition," which he understood as linguistic frameworks on which cognitive concepts and verbal expressions rely. Basically, the grammars of cognition reveal consensual processes of sensemaking that are appropriately applied to the defined situation or used in everyday life.

Critical Summary

Ethnomethodology is not an entirely homogeneous field and should be viewed as a subset of qualitative inquiry. However, it shows the broad praxical potential to build intelligible and reliable case studies. It suffices to say that the research tradition of ethnomethodology in its empirical orientation

has much to offer the case study approach. It turns our attention to lenses that we use while thinking and acting and reflects endogenous and contextually grounded life experiences. The uniqueness of this methodology consists of uncovering in vivo phenomena that lie behind and are connected to various kinds of accounts important in building solid grounds for case studies. It is these grounds that may enhance the reliability and accountability of a particular case. This basically points to the fact that ethnomethodology preserves the analytical orientations that case studies demand that connect all the details of the activities in hand.

Maria Aggestam

See also Conversation Analysis; Sensemaking

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ETHNOSTATISTICS

Ethnostatistics is a new field of scholarship that undertakes case studies of the professional creation, use, and interpretation of statistics and numerals. Ethnostatistics addresses statistics used in scholarly research as well as the professional production and use of organizational information. To explore these aspects of quantitative sensemaking, ethnostatistics focuses on informal or folk knowledge and social activities needed to actually produce and interpret statistics. Informal knowledge and practices of statistics production are essential to create and use statistics but are not well codified or explored in professional

treatments of statistics. Three levels of ethnostatistics developed through case studies of statistics production and use are: producing statistics (level 1), statistics at work (level 2), and the rhetoric of statistics (level 3).

Conceptual Overview and Discussion

The meaning of statistics needs to be understood so the distinctive domain of ethnostatistics is clear. Statistics involves theories and techniques to manipulate data. It is the occupational home of statisticians and quantitative professionals who teach, develop, improve, and use statistics. Second, statistics is a label for rule-governed calculations. Third, statistics refers to almost any numerical summary that is the outcome of rule-governed calculations. Statistics aims to produce better counting from a technically correct perspective.

Formal texts and training provide procedures and guidelines for creating statistics, yet little is known about how statistics are created and used by their makers and users. Ethnostatistics, outlined by Robert Gephart in 1988, is a new field of methodological scholarship that studies how statistics are actually constructed, interpreted, and used by professionals. Ethnostatistics emerged from ethnomethodological research into informal practices needed to enact measurement and to interpret measures in social and organizational research. Ethnomethodology demonstrated that formal accounts and practices of science fail to describe fully what scientists actually do—the content of scientific practice. Scientific practice relies in part on commonsense reasoning and practical choices. Ethnostatistics explores the commonsense reasoning and practical choices in statistics production and use.

To study tacit knowledge and informal practices, ethnostatistics investigates the activities in which statistics and measurement are locally produced and practically relevant. Ethnostatistics explores the immensely varied practices that terms like measurement and statistics gloss over. It produces highly detailed and vivid case descriptions of the locally organized production of statistical or quantitative knowledge. Ethnostatistics thus enriches our understanding of methodological aspects of quantitative social science and provides a qualitative perspective for understanding quantitative social research methods. Ethnostatistical

case studies thus assess quantitative research practices, challenge methodological conventions, and suggest improvements in quantitative research.

Ethnostatistics explores three levels of analysis. The first level, producing a statistic, uses anthropological techniques including observations and ethnography to develop case descriptions of the work activities of quantitative professionals as they create statistics. Ethnostatistics then undertakes a second level of analysis by putting statistics to work in computer simulations that assess underlying practical and technical assumptions made in producing statistics. These studies explore how alternative assumptions would influence outcomes and interpretations of statistical measurement in specific research contexts. Third-level ethnostatistics uses literary analysis to explore the rhetoric of statistics—how textual practices persuade readers that the statistics reflect truths.

Application

Three Levels of Ethnostatistics: Elaboration and Examples

First-level ethnostatistics studies how statistics are actually produced and used. Observational techniques including ethnography are employed to develop thick descriptions of conversations and actions of statistics producers and users as they create, interpret, and act on statistical information. First-level ethnostatistics explores the "how" of creating quantitative knowledge by following approaches developed in ethnographic case studies of natural science. This approach involves following quantitative researchers around while they work and examining the contexts, informal work practices, meanings, and knowledge used to produce quantitative research. The focus in these case studies is on who said what to whom, how, when, where, and why during the creation of measures, numerals, and statistics.

An important example is provided by Jaber F. Gubrium and David R. Buckholdt who undertook field research in two human service organizations to learn how "hard" quantitative data are created by hospital staff. Staff at one institution sought to measure "fantasizing" behavior by patients to develop a baseline of normal rates of problem behavior. The research showed that hospital staff relied on observations of patients' physical behavior

to recognize the existence of fantasizing—acts such as staring into space. But they counted or recorded only instances of fantasizing when it was displayed in actual verbal behavior. The researchers thus demonstrated that informal practices and ad hoc rules influenced decisions to count phenomena as psychological aberrations.

Second-level ethnostatistics uses simulations and statistical methods to test the usefulness, validity, and implications of technical and practical assumptions made in producing statistics. The distinguishing feature of second-level ethnostatistics is the concern with the intersection of technical and practical assumptions and the use of quantitative methods to understand how human and social features and contexts affect measurement outcomes, statistical results, and findings. For example, conventional regression statistics is a common tool in social science and management research. Pearson's regression statistic assumes data are measured at the interval level of analysis where an underlying continuous variable exists with equal distances between categories. However, researchers in social science and management commonly employ a parametric strategy whereby they convert ordinal data created with Likert scales (e.g., "strongly agree" to "strongly disagree" type measures) into equal interval values by assigning sequential numbers to observations. Likert-scale produced data are inherently ordinal in nature, that is, they exhibit differences in ranking of categories but no underlying equal distance between categories. In quantitative research using the parametric strategy, such ordinal data are transformed into interval data and treated as interval data for analyses.

A case study of the adequacy of the assumptions of "parametric strategy" was undertaken by Gephart in 1983 who simulated different data transformations on one data base and examined outcomes. The study revealed that the parametric strategy created measurement distortions that violated assumptions of regression statistics and thus made the use of the parametric strategy questionable. This raises questions about the validity of much research in management and industrial psychology.

Third-order ethnostatistics treats scientific reports and quantitative communications as rhetoric. That is, documents that report statistics are treated as literary documents. Third-order ethnostatistics explores how literary practices are used to accomplish meanings for statistics and to persuade readers about the truthfulness of the documents. It shows that interpretation and use of statistics are artful, rhetorical processes oriented to persuasion rather than strictly rational processes that report facts.

Jean Helms Mills, Terrance G. Weatherbee, and Scott R. Colwell in 2006 provided an example of how university documents, including Web pages, rhetorically compose interpretations of university performance. Performance was examined in terms of rankings done by the accreditation process of the Association to Advance Colleges and Schools of Business (AACSB). This ranking process created a large number of measures of institutional performance, but the researchers show how each institution highlighted a small set of measures favorable to the institution's reputation.

Critical Summary

Ethnostatistics offers a new domain for case study research that is timely and significant in today's world. Thus while many scholarly researchers still rely on statistics to establish scientific "truths," ethnostatistical case studies have challenged such received truths by demonstrating how different statistical measures, measurement practices, and research procedures can produce inconsistent findings and conclusions. Ethnostatistical studies have also challenged the ways statistical information is selectively created and rhetorically used by institutional stakeholders to legitimate organizational policies and reputations.

Such critical case studies of statistics production and use assume greater importance where acts of corporate malfeasance such as the Enron case can be linked to aberrant construction of financial statistics and information. Indeed the global financial crisis has underscored the risky nature of economic forecasts and planning that rely on selective construction and problematic interpretation of statistics. Statistics construction and use has thus produced adverse social impacts and challenged public trust in key social institutions. Ethnostatistical case studies thus offer a well formed basis for critical studies of quantitative sensemaking in key institutions. Such studies can lead to critical reflexivity, enhanced validity in research, and improved policy options.

Robert P. Gephart, Jr.

See also Ethnography; Ethnomethodology; Rhetoric in Research Reporting; Statistical Analysis

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EUROCENTRISM

Eurocentrism refers to a body of knowledge that has been used to interpret the histories and cultures of non-European societies according to the European experience. Embedded in present-day thought, values, and education, Eurocentrism is naturalized as common sense that underscores non-Western values and ways of knowing.

Conceptual Overview and Discussion

Eurocentrism first emerged as a discursive rationale that justified colonialism, the process by which the European powers reached positions of hegemony. Historically, the term *West* has been associated with ideas, values, and ideals reflecting the prevailing views of Europe—perceived to be the center of the world. As a form of thinking, Eurocentrism still permeates and structures contemporary practices, representations, and knowledge even after the formal end of colonialism. Eurocentric discourses present history as a linear trajectory, and Europe and, more recently North America, as the center of progressive, historical, democratic thought and change.

Early Eurocentrism can be traced back to the Renaissance, during which learning approaches focused on the ancient Greek and Roman civilizations, which were significant to contemporary European civilization. The assumptions of European superiority increased with European imperialism in the 16th, 17th, and 18th centuries and flourished in the 19th century. Cartography was particularly instrumental in representing the progressive industrialized character of this region, which was contrasted with hunting, farming, and herding societies in other regions of the world such as the Americas, Australia, and Africa, which had been colonized by European empires. Even the complex civilizations of Mexico, Persia, Japan, and Peru were not considered as well developed as Europe and were often characterized as being static and traditional. European writers of this time constructed the history of Europe as a paradigm to be followed by the rest of the world through either colonialism or trade. By the 19th century, assumptions about European superiority had been translated into racial superiority.

By ignoring colonial relationships between the West and non-Western peoples and cultures, Eurocentric knowledge constructs progress and modernity as an inherent and unique product of European internal conditions. In contrast, non-Western societies' "backwardness" is constructed as a result of their specific evolutionary stage or level of progress and development. These hegemonic assumptions not only ignore history but also have had important consequences for the development of social knowledge. Eurocentrism has influenced the cartographic centering of Europe; the division of global history based on European events; the portrayal of history, philosophy, and arts as being exclusively European; and the use of race as a category to classify non-Western peoples.

Immanuel Wallerstein, who has critically assessed Eurocentrism, argues that although modern social sciences were developed in England, France, Italy, and Germany, the theories and methods based on European and North American materials have been used as universal tools. Social science has been Eurocentric throughout its institutional history: (a) It grounds European dominance based on its specific historical achievements; (b) it claims that scientific truths are valid across time and space; (c) it reproduces the view that

Europe's history is universal history; (d) it separates subject from object; (e) it constructs non-Western peoples as a European projection; and (f) it centers on progress, which became the explanation of the world's history and the motor of applied social science. These different dimensions have been part of notions of progress, the binary backwardness/modernization, and rigid demarcations between fact and value judgments and the production of knowledge.

Edgardo Lander, who has also written extensively on this topic, argues that Western scientific knowledge is understood to be true, universal, and objective, and that by definition all other forms of knowing are simultaneously characterized as superstition or folklore. Western knowledge rests on the construction of multiple dualisms such as reason and body, subject and object, masculine and feminine, and culture and nature, which serve to sustain claims of objectivity. In social science, the discovery of universal processes—which explain human behavior and hypotheses that could hold across time and space—has been pursued to produce value-neutral knowledge and reveal the "reality" in different regions of the world. Scientific knowledge and technological development are considered to advance in a linear direction toward higher levels of knowledge that can be used to transform nature.

Application

Methodological Eurocentrism is based primarily on the assumption that Eurocentric concepts and explanatory and interpretative theories in the social sciences like economics, anthropology, and psychology apply to all societies across time and space and produce value-free knowledge. Early forms of research were less empirically driven and more normatively oriented. The move to empirical research happened slowly and was challenged because of its methodological conflict with a positivistic social science. Attempts to make empirical, particularly case study, research more scientific led to research standardization and the use of quantitative methods to reflect the Western paradigm. Standard social science requires that conditions of (a) problem definition, (b) hypothesis formation, and (c) data collection be met in order to produce reliable empirical research.

Eurocentrism is notable in the work of the founders of modern social science, such as Karl Marx, Émile Durkheim, and Max Weber, who were interested in understanding modes of production and forms of life from traditional to modern society. During the Cold War era, sociologist Talcott Parsons adopted Weber's contribution to distinguish between Western "universalist" social forms and "particularist" social forms of other cultures. Similarly, anthropologist Robert Redfield contrasted "folk" and modern "urban" society and "low" and "high" civilizations. Eurocentrism was the basis for constructing divisions or oppositions, where Europe and North America were perceived to be the model or reference for every other history. In comparative research, these constructs were useful to divide the world along binary oppositions such as First World/Third World and developed/developing/underdeveloped. These oppositions represented an evolutionary history and a set of attributes that distinguish the West from the rest of the world. One of the clearest examples of a Eurocentric worldview is Samuel Huntington's well-known book, The Clash of Civilizations and the Remaking of the World Order, where he characterizes the West and the rest in fundamentally conflictive ways.

The issue of the relevance of and applicability of Western or Eurocentric social sciences to non-Western contexts has been raised across disciplines. Critics have attacked the universalistic assumptions of Western sciences in favor of "indigenous" or local theories, approaches, and knowledge. Taking different cultural orientations as a frame of reference, researchers have been able to generate heterogeneous logic of the social phenomena and incommensurable concepts and for analyzing data. Recognition of multiple cultural orientations of research activities allows social scientists to develop culturally sensitive but less objective knowledge. Solutions of the multiculturalism problem are foundations of communications and truth claims in the domain of social sciences. The critique of Eurocentrism has emphasized multiculturalism and other perspectives and contributions.

Critical Summary

As a body of knowledge, Eurocentrism has been used to understand and interpret the histories and

cultures of non-Western societies and remains central to the production of knowledge that is regarded as truthful, objective, and universal. Eurocentrism is based on hierarchical dichotomies, the universality of the European experience, the separation of body and reason, and the construction of others.

Isabel Altamirano-Jimenez

See also Case Study Research in Anthropology; Cultural Sensitivity and Case Study; Ethnography; Postcolonialism

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EVENT-DRIVEN RESEARCH

Event-driven research is a dynamic research design that takes an evolutionary approach, focusing on people, processes, or routines and following observed or recorded events to their eventual outcome.

Conceptual Overview and Discussion

Event-driven research identifies events and records what happens over time, linking the events to outcomes at some point in the future (see Figure 1). Each event sparks multiple possibilities; what is of interest is the choice that is made at these junctures, and the consequences thereof. Event-driven research is longitudinal in nature and may occur over long periods of time—months or years. The same events are followed over time, linking prior events to subsequent outcomes like a narrative unfolding.

In some instances, archival data can be used to harvest the information needed to formulate

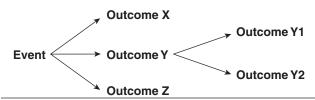


Figure I Event-driven explanations *Source*: Aldrich (2001).

event-based explanations. Not all events will lead to noteworthy outcomes, and many in fact may result in nothing at all, or nothing of interest. Unexpected and unanticipated occurrences influence the eventual outcome and are impossible to predict but can be recorded as they occur, including how they influenced or changed the event trajectory and eventual outcome. As events unfold, it is possible to identify a temporal effect including how and when events influenced or affected an outcome, or how long it took for a change to be evident. In this type of research, a lot of information about small events is gathered because the consequences remain unknown. Opposing forces, both positive and negative influences, can be noted, including how the process or organization responds. Based on a Darwinian notion of evolution, event-driven research is interested in variation, selection, and adaptation. Of interest to the researcher is the variety of possibilities, which possibility was selected, and the adaptation that occurred as a result of choices taken and the consequences thereof. The evolution of organizations is not built upon a model of equilibrium or homeostasis, but on an understanding that events change the direction of the outcome in significant ways. The order that events occur is significant in event-driven research and becomes part of the narrative that explains why a course of action was followed, and when. Events and sequences of events are observed and described, and explanations in the form of a narrative are offered to help to understand the phenomenon that is being studied.

Application

Event-driven research is illustrated by Linda Hill in *Becoming a Manager: Mastery of a New Identity*, which documents in a case study the story of 19 newly appointed frontline managers who are

followed through the first year on the job. Data are collected prospectively by the researcher, who spends time with each new manager, conducting interviews in person, shadowing the manager, and conducting phone interviews. The story of the experience and feelings of the managers is told using the managers' own words to create a narrative that describes how the managers defined their work and the transitions they experienced during the crucial first year. The "event" is the hiring of the employee; what occurs after that is observed and recorded, as events lead to other events until a predetermined outcome is reached or, as in this event-driven case study, a defined period of time has passed. This rich and descriptive narrative poses interesting questions for additional study and provides potential for organizational theorizing that could be explored further.

Critical Summary

Event-driven research is interested in how a process unfolds over time and results in outcomes that become events themselves that lead to further outcomes as the narrative unfolds. The basic difference between outcome-driven research and event-driven research is the stance of the researcher and the research question being asked. In outcomedriven research, the researcher is metaphorically facing backward into the past, answering questions about "what" happened and suggesting plausible reasons for "why" it may have happened. Eventdriven research imagines the researcher facing forward toward an unknown future, asking "how" questions and following an event through time to explain what outcomes occurred, and the subsequent events that resulted from decisions made.

Arlene Haddon

See also Outcome-Driven Research

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EXEMPLARY CASE DESIGN

In case study research, although a selected case occasionally is treated as a unique historical event (the emergence of the United States as a 20thcentury superpower), more commonly it is treated as an instance of a class of comparable events (e.g., the emergence of the United States, Russia, and China as 20th-century superpowers). Sometimes (e.g., as part of a program evaluation) the results of a case study are expected to generalize to a set of comparable cases that exhaust a particular class (e.g., a specifiable group of schizophrenics in a particular hospital). At other times, the results are expected to generalize to a set of comparable cases within a broad or even theoretically infinite class (e.g., schizophrenics in general). Regardless of whether the relationships observed are expected to generalize to a finite or to a theoretically infinite class, the relations between the particular case selected for study and the class to which generalization might be expected should be—but often are not—articulated.

A frequent assumption is that the selected case is an exchangeable member of the class as a whole. That is, members of the relevant class are considered sufficiently homogeneous to warrant arbitrary, perhaps even random, selection of any member of the class for case study. When such uniformity can be substantiated, it is plausible that (a) each instance of the class possesses the features that define class membership; (b) the features that define class membership constitute—or are within—the boundary

conditions for the occurrence of relationships observed in the selected case; and (c) the relationships observed in the selected case will, therefore, generalize to the other instances of the class. In social science research, however, members of a class repeatedly—and perhaps generally—are neither homogeneous nor exchangeable, and, to that extent, attempts to generalize from a single case become problematic.

One way to address this issue is by selecting for study a case that exemplifies the relevant class. When an exemplar has been appropriately identified, the relationships observed in that particular case may generalize to other cases to the extent that they, like the exemplar, possess the features that define class membership. This claim requires clarification of what it means to exemplify class membership, that is, what it means to say that members of the relevant class possess the features that define the relevant class. So, if an "exemplar" is "a typical example" of a class, how is such "typicality" to be understood?

Conceptual Overview and Discussion

Exemplars From Univariate Classes

When the relevant class has a univariate definition, the search for exemplary instances is reasonably clear. When a single, class-defining feature is either present or absent (i.e., when a dichotomous nominal scale is the basis for class membership), it is possible simply to select as exemplary a case in which the defining feature is present (e.g., an individual who has been widowed). Similarly, it is straightforward to select an exemplar from the maximally contrasting class that is defined by the absence of that feature (e.g., an individual who has not been widowed). And, by extension, when a single, class-defining feature identifies a deviant class, it is possible simply to select an exemplar in which that anomalous feature is either present (e.g., an individual who is unable to recognize faces) or, for a maximally contrasting class, absent (e.g., an individual who is able to recognize faces). Thus, when a class-defining variable is nominal and dichotomous, simplicity in the choice of an exemplar, including an exemplary member of a deviant class, is ensured by the inherently homogeneous character of the relevant class.

When a single, class-defining attribute is a continuous variable (i.e., when an ordinal, interval, or ratio scale provides the basis for class membership), selecting exemplars becomes somewhat more complicated. It is possible to (a) select an extreme case that has the highest value on the relevant variable (e.g., an individual with extremely frequent nightmares); (b) select an extreme—and maximally contrasting—case that has the lowest value on the relevant variable (e.g., an individual with extremely infrequent nightmares); or (c) select a normative case that has mean, median, or modal values on the relevant variable (e.g., an individual who reports mean, median, or modal nightmare frequency). In each of these circumstances, the selection of extreme, extremely contrasting, or normative cases according to their positions on a continuum is tantamount to the creation of homogeneous subgroups of which the selected cases are exemplary.

Exemplars From Multivariate Monothetic Classes

The search for exemplary cases is considerably more challenging when the class definition is multivariate. One step in this direction occurs when an exemplary case is selected using a multiclass nominal scale (e.g., basketball players, football players, baseball players, volleyball players). In these circumstances, it remains straightforward to select an exemplar from one of the classes that constitute the nominal scale so that its sole defining feature is present (e.g., an individual who is a basketball player). And, in these circumstances, class membership remains homogeneous—just as occurs in classes based upon a dichotomous nominal variable. However, selection of a case from a maximally contrasting subclass is not straightforward, because each of the other subclasses constituting the multiclass nominal scale has a different defining feature (e.g., an individual who is either a football player, a baseball player, or a volleyball player).

A more common multivariate challenge emerges when two or more features define the class for which an exemplar is sought. Regardless of whether the class-defining features are dichotomous nominal variables, continuous variables, or some combination of these, investigators often select cases that exemplify classes in which some combination of variables defines class membership. For example, it may be possible to select a case that exemplifies

African Americans residing in Massachusetts whose income is at the lower extreme of incomes in that state. Classes defined in this way can readily contain cases that are identical on all the variables that define the class. Just as the nominal variables (e.g., African American or not African American, resident in Massachusetts or not resident in Massachusetts) and the continuous variables (e.g., extremely low incomes) that jointly define the class can separately yield homogeneous classes, their conjunction also will provide a homogeneous class from which an exemplar can be selected. This possibility defines *monothetic* classes, that is, classes in which the cases are identical—or very nearly so—on all the variables that define the class.

The essentialist logic of multivariate monothetic classes provides the investigator with a seemingly compelling option in case study research: the invariant features of monothetic classes-and of their exemplars—accommodate the logic of operationism that dominates contemporary social science. When the necessary and sufficient features that define a class can be operationally articulated so that members of the class are homogeneous, class exemplars can similarly be operationally identified for case study. However, phenomena in the social sciences may more often require the nonessentialist logic of multivariate polythetic classes for which there are no separately necessary and jointly sufficient features that define a class and, correspondingly, no separately necessary and jointly sufficient features to facilitate the identification of exemplary instances of the class. So, multivariate monothetic classes provide an important transition to consideration of multivariate polythetic classes. The importance of this transition is reflected in the controversies that surround discussions of typological studies in the social sciences. Multivariate monothetic classes are often what critics have in mind when they refer to typological studies as "merely descriptive." Multivariate polythetic classes are often what advocates have in mind when they refer to typological studies as conceptually formative or generative.

Exemplars From Multivariate Polythetic Classes

The identification of exemplars that typify multivariate polythetic classes brings out a different set of issues than does identification of the exemplars

that typify multivariate monothetic classes. Whereas in monothetic classes each instance is identical to other members of the class on all the class-defining variables, in polythetic classes each instance is "merely" more similar to other members of the relevant class than to the members of other classes. A multivariate assessment of similarity, rather than identity, seems required by Morton Beckner's classic definition, according to which polythetic classes entail a set G of features $(f_1, f_2 \dots f_n)$ such that:

- 1. Each member of the class possesses a large number of the features in G
- 2. Each feature in G is possessed by large numbers of these individuals
- 3. No feature in G is possessed by every individual in the class

A class is called polythetic when the first two criteria are met and fully polythetic when all three criteria are met. In a fully polythetic class, the members do not have even a single feature in common; there is not even one feature that is necessary for class membership. Thus, it has been useful to consider the exemplar of a multivariate polythetic class as a case whose profile of features (a) most nearly resembles an idealized array of features (in G) that are characteristic of the class (ideal types) or (b) most nearly resembles the normative levels of the features (in G) that are characteristic of the class (normative types).

Ideal Types

For fully polythetic classes, one strategy for identifying exemplary cases is to select instances of the class that amplify and accentuate the features that are most nearly characteristic of the class. This strategy can be compared to John James Audubon's attempts to depict the typical characteristics of bird species by magnifying their features in his drawings—approaching but never quite reaching the point of caricature. The numerical counterpart to this strategy is to use extreme values on the dimensions that contribute to the definition of a relevant polythetic class and, in this way, to articulate an ideal type that amplifies and accentuates the characteristics of the class. As in Max Weber's discussion of ideal types, exemplary

instances in this sense are those that possess as many as possible of this idealized profile of features (or, stated differently, deviate minimally from this idealized profile)—even when instances of the class possessing the entire profile are rare or even nonexistent.

A case selected because it minimally deviates from the profile of features that identify an ideal type "represents" a class of entities even though it may be far removed from the central tendencies of that class. Choosing the ideal type as a basis for case selection involves theoretical decisions at two levels. First, this selection reflects commitment to a theory of concept formation and identification comparable to prototype theory in cognitive semantics. Second, it reflects a theoretical statement about the features of the ideal type that constitute the boundary conditions within which the relationships observed in the case study are most likely to be replicated. So, although it is possible to quantify the extent to which an instance of the class deviates from the ideal type, such quantification reflects theoretical commitments that are markedly different from those that are involved in the more typical assessment of departures from normative class characteristics.

Normative Types

A second strategy for identifying exemplary cases within polythetic classes is to select those instances of a class that deviate as little as possible from the central tendency of members of that class (i.e., from the class mean, median, or mode for each of the features in G). The advantages of this approach become evident within broader consideration of the systematic classificatory procedures that rely upon numerical algorithms such as cluster analysis, as seen in the work of Kenneth D. Bailey. Cluster analysis requires (a) assessment of all the features in G across an array of individuals for which a classification (or taxonomy) is sought; (b) the calculation of pair-wise similarities (or dissimilarities) between each of the individuals in that array (e.g., Pearson product moment correlations, squared Euclidian distances); (c) submitting these coefficients to an appropriate classificatory algorithm (e.g., hierarchical cluster analysis, Q-type factor analysis); and (d) determining the features in G that differentiate each of the classes of individuals emerging from these procedures. Minimal deviations from the profile of means, medians, or modes on the features in G that differentiate each of the emergent classes are then available as the criteria for selecting the exemplars of each class.

Although it would be possible to articulate an ideal type that amplifies the characteristics of a class derived from cluster analysis, ideal types are not usually attempted in applications of these numeric procedures. The reason is that, with the proper choice of similarity coefficients (e.g., squared Euclidian distances rather than Pearson product moment correlations), cluster analytic algorithms preserve both levels and profile information in the assessment of similarity between individuals and, hence, in the creation of classes. Thus, deriving ideal types from these classificatory procedures by amplifying the characteristics of a class might actually diminish the differences between the exemplars of different classes.

Another advantage of these procedures is that they require clear differentiation between (a) the features in G that differentiate the classes (and that facilitate exemplar identification) and (b) the features that are not in G but that may nonetheless be involved in the relationships observed in the case study. This differentiation enables the investigator to select from among three different design alternatives. One form of case study involves the examination of relationships between variables other than those that define class membership. The features that define class membership, then, theoretically constitute—or are within—the boundary conditions for the occurrence of relationships between these independently considered variables. In a second form of case study, relationships between features in G and features that are not in G may facilitate expansion of the class-defining features that belong in G. Thus, the case selected for study may enable further explication of the features that define the class. A third form of case study may uncover previously unknown causal relationships between the features in G, potentially contributing to articulation of Aristotelian "natural kinds" or Kantian "self-organizing systems."

Critical Summary

It is important to differentiate the orientation toward exemplar identification described here from exploratory case studies in which no relevant class has been articulated in advance. The search for exemplars is grounded in the assumption that the investigator's long-term objectives include the generalization of relationships observed in the case study. So, the notion of exemplar, at least as understood here, presumes some degree of articulation of the class to which those relationships might be generalized.

It is also important to recognize the differences in what it means for an exemplar to be "representative," as demonstrated most clearly by the contrast between multivariate monothetic classes and multivariate polythetic classes. There is more than one way to be a typical member of a class—and choosing between them depends upon fundamental theoretical commitments.

Don Kuiken

See also Causal Case Study: Explanatory Theories; Extreme Cases; Naturalistic Generalization; Objectivism; Polar Types

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EXISTENTIALISM

Existentialism refers to a branch of philosophy that focuses on the individual and emphasizes process. Existentialism places an emphasis upon how we live our lives, not the nature of our existence. Even though it is arguably ancient in inception, existentialism naturally comes face-to-face with timeless issues such as humanism, freedom, and ethics. Taken as a broad area of inquiry, existentialism offers the potential for an ethics of freedom without subsequent nihilism. Case analyses that are rooted in an existential approach are interested in the freedoms and choices of individuals, with a

view toward understanding individuals' authenticity. The denial of destiny that is part of existentialism means that responsibility and an ethics of freedom will be at the heart of any case analysis that uses existentialism as a methodology.

Conceptual Overview and Discussion

Existentialism is in some ways the forgotten philosophic child of the 19th and 20th centuries. Variously seen as morally bankrupt and nihilistic, a passing fad of the Left Bank of Paris, or superseded by the traditions of "The Post" (i.e., post-modernism, poststructuralism, postcolonialism), existentialism refers to philosophies that are grounded in the contextualized freedom of individual agents. Individuals are regarded as residing in the intersection of the past, present, and future with their own potential being the ambiguous site in which the intersection of self and freedom is played out, whether in good or bad faith.

Given all of the above, the label of being an existentialist can be contentious. Many associate the atheistic existentialism of Jean-Paul Sartre and Simone de Beauvoir with all existentialism, and the proto-existentialist Friedrich Nietzsche's famous pronouncement of the death of God seems to place him in like company. However, Søren Kierkegaard's early existentialism is somewhat compatible with a more theological perspective.

Existentialism is generally not regarded as the exclusive realm of the philosophers. Indeed, many of those who are seen as existentialists have contributed to the area of understanding largely through literature, with examples such as Sartre's novel *Nausea*, the works of Franz Kafka, and Camus' *The Stranger* being notable.

To move our discussion of an existentialist case methodology along, we need to come briefly to some broad and general sense of what existentialism is. This is no simple task, for existential philosophy is diffuse. We may, however, identify some common themes that run through existentialist thought:

Individuals in Process

Existentialism is focused upon the individual, and is commonly seen as being a humanist pursuit. Furthermore, the philosophy is interested in how

individuals exist, not what their existence is comprised of. The existentialist argues that, through our nature as beings of choice, existence precedes essence. In other words, we create ourselves through our choices. This might lead one to surmise that existentialism is primarily philosophical; far from it. Existentialism is seen as being practical; indeed, a way of living. Through arguing that we are the result of our choices, existentialism does not deny that we are shaped through our situation but rather argues that we can make something out of any given situation through our choices.

Time, Death, and Absurdity

Our experience of time is fleeting and of the essence, and for the existentialist this is important. Unlike the positivist notion of a universal time, existentialists argue that we experience time in different ways and depending upon what we are doing, thus adding a qualitative aspect to lived time. We are shaped by our past and yet at the same time we are more than just products of some sort of inevitability. We create our imagined future through our choices and so even our perception of the present is shaped through our free will. Because the decision to choose is in fact a choice, existentialism argues that these choices arise largely from nothingness and negation, now center-points at the heart of how we exist. Thus our own death is a lack of existence that is ironically similar to our existence of choices, which also arises out of nothingness. This renders our own death an absurd concept.

We are thrust into a world part way through the story, in which we now create ourselves. Without a metaphysical overseer, we have no singular external focus. Yet we are also aware of our impending nonexistence. Our absurd existence, which will end at some point, seems poignant; we cannot live the lie of pretending that we will live forever and yet to remain virtually paralyzed in indecision and fear creates a sort of premature existential death of the individual. Thus, an awareness of fleeting time is part of an existential perspective.

Both Anguish and Freedom

So existentialists argue that we live with a certain dread of something we can't quite fully identify. Anguish, anxiety, and nausea are all terms

that existentialists such as Kierkegaard and Sartre have used to differentiate these feelings from simple fear. Fear is related to something specific and tangible, whereas these other terms describe a sort of despair arising from a sense of choice without clear rules. We are free to make choices, but how to know what to choose? We thus have an emotional awareness that we are trapped by our own freedom. Conversely, not to feel this anguish is to be living in self-delusion by not being fully aware of how we create ourselves through our own choices. Freedom to choose, with the anguish that results from our awareness of such freedom, is central to existential case research.

Ethics and Responsibility

Can we act ethically without engaging in the inauthentic behavior of denying ourselves our choices and thus our very identity? If so, how might we avoid nihilism and at the same time avoid a false sense of determinism, thereby ignoring our innate free will? These questions are at the center of the existentialist notion of authenticity.

To live authentically is to be true to our nature as creatures of freedom and choice. We are guilty of acting in bad faith when we deny our freedom to choose. We are responsible to ourselves, and yet we chose our very identity when we live authentically. How can this become an ethics, indeed what is our responsibility, when it comes to others?

Beauvoir offers us a useful way of examining this issue when she refers to the concept of "an open future" in which we are able to extend our own freedom through the expansion of the freedom of other. Our freedom is situated in our context, but we are more than our circumstances at the same time. Existential freedom needn't be a mutually exclusive condition among individuals, according to Beauvoir.

Ambiguity

At the core of existentialism we can see that ambiguity abounds. We are free, but we feel anguish; we create ourselves through choice, and yet we are affected by the context of our situation and by others. This is the nature of a process-based philosophy in which how we live takes center stage, superseding questions of the nature of existence. At

the same time that these unique, even quirky, aspects of existentialism seem challenging, we can begin to see the outlines of the strengths that such a perspective offers for case study research. What follows are three examples of case studies that use existentialism as a key part of their analysis.

Application

To make best sense of how existentialism is applied to case study research, it seems useful to offer some examples of studies that employ a variety of different existentialist perspectives. Below are highlighted three case studies that use existentialism as a primary component in the analysis:

Women's Stories and Beauvoir's Existentialism

Peggy Wallace's 2007 dissertation is a specific use of Beauvoir's feminist existentialism to probe narratives of female chartered accountants or CA (in Canada; CPA in the United States). She first develops a feminist existentialist lens based upon key aspects of Beauvoir's work found in *The Second* Sex, specifically highlighting the ideas of woman as the other, the notion of the independent woman, and the role of institutions and motherhood in women's choices. By applying this theoretical lens to interviews with women concerning their stories of career choice as a CA or CPA, Wallace builds a case study of how women tell their stories regarding career paths and their acceptance of the role of choice as female CAs or CPAs. This particular study then makes two broad contributions. First is the application of a feminist existentialist philosophy to a case study. Second is to thereby probe the career narratives of women who are also CPAs or CAs. Because the literature supports the fact that many women exit potentially powerful career streams that likely lead to partnership in large accounting firms, the application of a feminist existentialism is especially revealing. This approach offers a detailed examination of how the social situation of these women as well as their acceptance (or lack of acceptance) of free will, choice, and the responsibility of such, intersect. Thus Wallace's contribution is to probe how individuals' suppositions about themselves and their world lead to their creation of their own identity as well as the product of their aware or unaware choices.

Work and the Meaning of Life

Scott MacMillan makes extensive use of existentialism to probe the meaning of work. Initially starting with an exploration of the job career calling model, he explores how individuals make sense of their work lives. His dissertation is essentially comprised of 15 in-depth interviews with individuals who have made major changes in their working lives in their middle adulthood. Rather than use only one existentialist philosopher's perspective, MacMillan derives majors themes and concerns from across a variety of existentialists in order to provide the lens through which he seeks to understand the interviews.

By taking a broadly phenomenological stance and specifically applying existentialism to the meaning of work for individuals who have made changes later in life, MacMillan is fundamentally exploring individuals and their search for an authentic life. This therefore also has implications for the study of notions of spirituality and work, in that MacMillan interrogates the implied compartmentalization of spirituality (and any subsequent attempt integrate it) to domains outside of one's working life.

This work offers a substantive methodological contribution through the application of a broadly defined existentialist perspective. Beyond this, Macmillan reaffirms the need to focus upon the individual in matters of meaningful work and the complexity of the domain. Practical implications concern the identified need for a link between applied reflexivity on the part of individuals and their making sense of their own working lives.

Existential Sensemaking

Anthony Yue and Albert J. Mills make extensive use of existentialism in their 2008 case study of a mountaineering expedition in the Peruvian Andes. Through weaving a complex analysis of life and death decision making on the part of the mountaineers, the authors accomplish a number of goals: they offer an example of how Karl Weick's sensemaking approach may be informed by Sartre's existentialist ontology, how individuals may skillfully navigate their own identity construction; and they shed light on the process of organizing.

The authors consider intersections in how sensemaking, which is concerned with how we understand past events and our own identity, interacts with the freedom of choice offered through an existential perspective. They then use a detailed examination of the book *Touching the Void* by Joe Simpson as a nuanced case that demonstrates the role choice plays in how we understand and create our own identity.

One key contribution of this piece is the technical linkage of existentialism and sensemaking into a heuristic that offers the opportunity to examine organizational processes without removing individual choice from the center of the analysis. Thus the authors create a robust tool for the researching of socially situated individuals who are both free agents and at the same time influenced by their context.

Critical Summary

Existentialism refers to a group of philosophies concerned with how individuals live their lives. This interest is framed with the backdrop of understanding that our lives are finite, yet even within our limited lifetimes we have a great degree of choice. This focus naturally leads to quandaries of ethics that variously relate to how an individual makes correct, indeed ethical, choices and how these choices may affect others.

The utilitarian practicality of existentialism, grounded in a sense of comfort with ambiguity, interested in how we live our lives, and concerning a nonessentialized individual with choice and freedom, is useful as both a heuristic for case analysis and as a personal philosophy for the researcher. Unlike structuralists or positivists who contradictorily make free choices while tacitly alluding to their research subject's inability to do so (based upon the researchers' chosen theoretic perspective), existentialist researchers can explore how they themselves navigate such research decisions. This relative philosophic unity between what one seeks in one's research, how one goes about doing so, and one's perception of the subjects one studies is at the crux of the practical nature of existentialism. Thus we might argue that there is a certain honesty and authenticity in an existentialist philosophic perspective for the case study researcher.

Anthony R. Yue

See also Authenticity and Bad Faith

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EXPERIENCE

Experience is an element of case study research that helps bridge the gap between data and presentation. Experience enables a researcher to draw out various elements of the data *and* the research process in order to create a more complexly nuanced case study.

Conceptual Overview

Unlike other forms of research, research methods in the social sciences are often experiential. The act of doing research is as vital a part of the data collection as the data themselves. This is because many qualitative methodologies are firmly connected to the human aspect of data collection. In the social sciences, humans gather data from other humans, and both researchers and as subjects are capable of self-reflection. This differs from the nonreflective subject of the natural sciences. For many, this arguably presents a problem with the qualitative methods that are sometimes used in the social sciences to gather data on subjects capable

of self-reflection. If humans are interviewing and talking to other human beings, then the data can be, some would say, skewed by numerous factors that come into play when people interact. For others, however, such argumentation is weak since all research designed and carried out by humans—regardless of the method—is a human endeavor and potentially marred by various levels of human fault and inconsistency. The concept of "experience" then becomes vitally important as a part of the training, data collection, and teaching tools in case study research.

Application

Experience in case study research can be viewed two ways. First, there is the experience of the researchers who complete the case study. Their experience includes both the act of collecting the data and the interpretation and theorization extending from the data. This experience, made available to others, is valuable in the process of creating comparative analyses, preparing for research in general (creating a research design/proposal), or teaching. Second, the reader's experience is important in terms of assessing and applying the case study. Through comparing and contrasting experiences, richer, more detailed case studies can be developed.

One of the benefits of illustrating one's own experience in case study research is that it can effectively allow others to see how an experienced researcher has dealt with various research settings. While research settings are rarely duplicated in the social sciences, having exposure to the specific research experiences of others usually means that some aspects will overlap with one's own research situations. If the experiences of others, as presented in case studies—or in the form of critical "stories from the field"—are made available, then the panoply of possible problems and outcomes in research becomes more easily imagined. In addition to the pragmatic value of research experience, researchers' experience in varied research settings enables them to interpret and analyze subsequent experiences of data collection. Part of social science research training is a fine-tuning of the individual's ability to "read" ambiguous or "messy" human interactions. Of course, the researcher is often part of these interactions, thus researchers have to be able to manage their current social and emotional states while interpreting them in light of past personal research experience and the integration of knowledge from others who have worked in similar situations.

G. N. Appell's collection of very pithy case studies from anthropologists engaged in field work is still salient today. The volume centers on ethical issues that can arise during field work, so each entry briefly presents the situation and the ethical problem that the researcher faced. In some cases the anthropologist's course of action is revealed, but in others the reader is left without the "answer" and therefore must decide on the most acceptable decision. This kind of material makes for a very powerful teaching tool as it opens discussions that go beyond the pragmatics of methodological choices and into the realm of the very real and unpredictable situations that can arise.

The voyage of the research experience is wonderfully illustrated in Ruth Behar's monograph. Part ethnography part diary of a social scientist, Behar's work refuses to keep clear the boundary between herself as scientist of culture and herself as human being. What many readers might find unsettling—the openness and clarity with which she exposes her inner thoughts—others find refreshing. Finally, the experiences so many unknowingly share come to light and none of the data or the ensuing case study is marred because of it.

Researchers should be able to translate their experience into a useful research tool. Without proper reflection on our experiences, in terms of using them to develop salient case study examples, they can fall too easily into the realm of interesting anecdotal information. The value of experience comes in being able to assess and analyze it critically, and then transmit it to others. The experience researchers gain—as researchers and as interpreters of others' research experiences and outcomes—is a very valuable asset in terms of teaching and training. Part of the greatest challenge in teaching case study research methods is that the subtleties of the methods can really become understood only once people experience the methods themselves. Class time devoted to lengthy discussions of interview techniques, styles, and even potential problems can carry a researcher only so far. The actual act of gathering qualitative data is the way students begin to understand how research methods actually operate in the field and to gain insights as to a method's relative strengths and weaknesses. Again and again social science students express that before employing case study research methods they had anticipated being "good interviewers" because they considered themselves social, personable, and interested in what others have to say. After having some field experience, they found they were confronted head-on with their shortcomings and successes in using qualitative methods. Therefore, one of the strongest teaching tools one has is the use of personal experiences in previous research settings.

Critical Summary

In light of the nature of social science research projects and the subtle nature of many of the techniques, the informed and critical experiences of others become part of the roadmap enabling researchers to find their way more confidently. Case study research is ultimately useful in the development of research projects and in the classroom because of the successful translation of researchers' experiences.

Liesl L. Gambold

See also Field Work; Going Native; Participant Observation; Reflexivity; Subjectivism

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EXPLANATION BUILDING

In case study research, an explanation—a good, successful, satisfactory, adequate, or acceptable explanation—is intended to act as an answer to a specific research question. What counts as an explanation depends on the interest of the

researcher. Contrastive explanation is particularly valuable in case study. It shows why one thing rather than another (which might have been expected) occurred, or why one explanation of a given event is more acceptable than an alternative. One explanation of why a sports team does well over a season might be that it possesses better players than other teams; an alternative might be that the coach is so effective that he or she can get mediocre players to perform consistently at their best. Analysis of successful teams might lead to the conclusion that one explanation was comparatively better than the other.

Conceptual Overview and Discussion

The following examines the major considerations in building an explanation by addressing these questions: What is the relationship between explanation and understanding? In what sense is explanation objective? How do the questions asked influence the explanation? What is the nature of causality? How does a contrastive explanation provide benefit to a case study?

Explanation, Understanding, and Objectivity

To explain something means to contribute to fostering an understanding of it. Someone who can provide an explanation of something demonstrates that he or she understands it, but creating an explanation will also contribute to others' understanding.

Ludwig Wittgenstein's discussion of word games suggests that a major part of understanding something is that a person can accommodate it in his or her worldview, that complex of knowledge, beliefs, and values that is an individual's internal representation of what the world is. We avoid the apparent subjectivity of our individual worldviews because we have ideas in common with other people. Ideas shared with others possess objectivity. Thus we can share understanding through explanations that are related to commonly held ideas about the world. When such commonly held ideas are used explanatorily, they escape from subjectivity.

The Research Question

Posing a specific research question is fundamental to explanation building. An explanation does not exist in and of itself; it explains *something*. The formulation of the question identifies the interest of the researchers, the aspects of the case they are concerned with, and the direction of the research. It also suggests what would provide a satisfactory explanation.

A research question often concerns an event that occurred and that is not understood. Lack of understanding suggests that some other outcome was expected, so the question often implies an unstated "rather than something else." For example, Why did the Soviet Union place strategic offensive missiles in Cuba (rather than directly negotiate with the United States for the removal of American missiles in Turkey)?

Causality

The question "why A?" or "how did situation A become situation B?" may invite a causal response. A scientific understanding of causality is "mechanical": effect irrevocably follows cause. When we explain, for example, how lightning kills people, the outcome is a causal chain that is an inevitable result of the laws of physics. Such a deductive–no-mological explanation is usually not feasible in human affairs because human actions are initiated by ideas and result from free will. As a result, the main mode of reasoning in explanatory case study is inferential and inductive rather than deductive, and causation is construed more broadly. We identify actions or ideas that have a strong causal influence on subsequent events as causes.

It makes sense to us to say that Hitler caused the Holocaust. In explaining how he did so, we would include the key Wannsee Conference in which the practical details of how to kill 11 million people were ironed out in what became an agenda for action. But this would not have occurred if Hitler had not become chancellor of Germany in 1933 and subsequently influenced others to accept his views and so create a society in which Jews were dehumanized and the unthinkable became unexceptional.

Contrastive Explanation

The contrastive explanation takes two forms. It may show that one explanation of a given situation is preferable to some other explanation. Alternatively, it may show why one state of affairs obtains rather than some other state of affairs.

As noted above, research questions often contain an implicit "rather than" clause. Because an anticipated or expected occurrence did not materialize, it is hypothetical or counterfactual. The explanation of what did occur is contrasted with the explanation of what might reasonably have been expected to occur.

Contrastive explanations are important because they can enable us to identify how the factors that influence the actual outcome differ from the factors that would result in some other outcome. John Stuart Mill's method of difference may be exploited when we identify that two different circumstances are the results of similar chains of causal influences and we infer that the difference in outcomes is largely due to the differences in the causal chains. Thus we recognize which factors had a particular influence on the outcome.

Not all explanations can be contrasted; they may be incommensurable. In such cases, if one explanation is to be preferred, its selection may depend on nonexplanatory factors such as the interest of the researcher. If alternative explanations are not commensurable, the acceptance of one may not require the rejection of the other.

Application

Ted K. Bradshaw's study of a military base closure provides a straightforward example of a contrastive explanation. Received wisdom was that the closure of a base would have major effects on the local economy. Lost jobs, falling house prices, and less money spent in local businesses are expected. This did not happen when Castle Air Force Base closed. The cleanup of the base itself created new jobs; jobs that had been held by family members of military personnel became available; retail sales grew (albeit more slowly than otherwise expected).

Received wisdom provided an explanation of what was expected, and suggested what data might be collected to support it. Because the data collected did not support received wisdom, the latter clearly provided an inadequate explanation. Bradshaw had to create an alternative contrastive explanation to show *why* the expected disbenefits did not occur.

Graham Allison and Philip Zelikow introduce their explanation of the Cuban missile crisis by identifying three models that were considered as the basis for an explanation of the crisis.

The rational actor model is a game-theoretical analysis that holds that the crisis was a game of chicken between Kennedy and Khrushchev in which one player's move is entirely determined by the other player's previous move(s). The organizational behavior model is that there are a number of semiautonomous groups within (and without) government, each with its own distinct interest in the situation, and that these groups produce decisions that are channeled upward and in turn influence presidential decisions. According to the government politics model, any government decision is a result of political bargaining between factions with different degrees of power, and in which interests are traded and favors given and called in. Each one of these models represents a particular academic discipline (game theory, organizational behavior, and political science) and shows how the interest relativity of the researcher(s) will favor a particular explanatory model.

In this well-known case, the authors demonstrate that any one explanation is not conclusively superior or preferable to others, and that they all inform aspects of the crisis. A more complete explanation than is provided by any one model is given by an aggregation of the three models, despite the interests of researchers (game theorists, organizational behaviorists, or political scientists) to provide complete explanations from their own fields. It is also possible that another explanation entirely, such as one focusing completely on the psychology of Kennedy and Khrushchev, may be more comprehensive.

Critical Summary

Explanation building is concerned with finding a robust explanation of why a particular state of affairs exists, often contrary to expectations. The expectations may be based on a theory/model or on observed previous similarities. This contrastive explanation requires the researcher to describe a hypothetical explanation and to show how actual causal influences differed from those projected by the model. A study that attempts to contrast explanations will not necessarily find that one explanation is preferable to another, but the contrasting explanation provides a methodology for case study

research that will likely lead to the determination of an acceptable explanation.

Alan Belk

See also Causal Case Study: Explanatory Theories; Comparative Case Study; Explanatory Case Study; Method of Difference

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EXPLANATORY CASE STUDY

Using both qualitative and quantitative research methods, explanatory case studies not only explore and describe phenomena but can also be used to explain causal relationships and to develop theory.

Conceptual Overview and Discussion

Case studies are often lumped together under the rubric of qualitative research and are frequently confused with methods such as ethnography and grounded theory as well as those of quasi-experimental research. In fact, explanatory case studies are distinct from all of these, and unlike most qualitative research that is employed to explore certain phenomena, explanatory case studies can be employed to explain phenomena. Explanatory case studies should consist of an accurate description of the facts of a case, considerations of alternative explanations, and a conclusion based on credible explanations that are congruent with the facts. A major proponent of using case studies to explain phenomena has been Robert Yin.

The central feature of any case study is the intense focus on a single phenomenon. In investigating this phenomenon, researchers must be concerned with all possible sources of data that may shed light on the phenomenon. Therefore, case studies should not be directly associated with any one type of data collection. Consequently, the design should be driven by the needs of the case study methodology, not by the requirements of any one type of data analysis. This is equally true in explanatory case studies.

The most difficult part of conducting any case study is defining the case. A case that isn't well defined can lead to findings that aren't actually about the case but rather something else entirely or, in the case of multiple case studies, that the individual cases are not in fact comparable. Using common terms to define a case can also be problematic in that investigators may understand different things by the same term. It is critical that investigators describe the case clearly in language that everyone understands to mean the same thing. Essentially, in order to develop an explanation the investigator needs a clear understanding of the phenomenon or phenomena under investigation. See for example G. T. Allison's classic study of the Cuban missile crises, where he very clearly defines the phenomena under investigation.

Application

Explanatory case studies should follow an outline that clearly indicates the priorities to be explored. Some type of flowchart or logic model that portrays the patterns to be investigated is necessary in order to ensure that the investigation stays on track. Completing such a logic model in advance of the start of the research can guide investigators as to what topics or questions need to be explored.

While following an outline is critical to the design of a case study, such forward thinking does not mean that the investigator is rigidly stuck following such an outline. A key feature of an explanatory case study is for the investigator to remain

open to new discoveries during the process. Similar to a crime scene investigator using strict scientific methods in a crime scene investigation yet staying open to all possibilities affecting the crime, researchers using this method must also stay alert to all new possibilities. However, in order to prevent biasing a study by allowing such discoveries to modify the design, researchers may have to revisit the entire design should such a discovery call into question the earlier work. This iterative process is a strength of the explanatory case study as it ensures that the explanation is arrived at independent of any methodological biases.

Investigators may also want to examine rival explanations as a strategy for enhancing the credibility of their own findings. Examining another study's explanation of a phenomenon and showing how it fits or does not fit with their own shows that the researchers are open to all possible explanations and have indeed explored all possible data sources. The key to this process is to overcompensate, to saturate, when collecting information to support a rival theory, thereby avoiding the perception of bias. Allison, for example, organizes his investigation by positing three possible models of foreign policy that could be used to explain the crises.

Case study research has always required acquiring information from multiple sources. Such triangulation occurs during data collection and may lead to data sources not previously considered. This clearly is an asset as it will increase the veracity of any explanation.

A key issue in explanatory case study research is to distinguish between the actual evidence and the investigators' interpretation of the evidence. Historically, it has been very difficult to distinguish between the two as the results have been presented in narrative form created by the investigator. This has led to the criticism that investigators are presenting only the data that support their own interpretation. It is critical that researchers present their findings in such a way that the reader can clearly follow the logic employed to arrive at the explanation. See, for example, A. E. Dale's investigation of the patient's quality of life.

Generalizing from case studies has long been considered a problem. However, being able to generalize is critical to arriving at explanations. It has been suggested by Robert Yin and others that the solution is to consider each case study as a unit

equivalent to an experiment and then to conduct multiple case studies just as multiple experiments are conducted. The problem of generalizing the results is the same in both quantitative and qualitative research except that case study investigators are not driven by or constrained by an existing theory. Rather, they are trying to develop a new theory or a new explanation.

Critical Summary

Explanatory case study research clearly has a role to play in investigating and explaining complex phenomena that may not lend themselves easily to quantitative research methodologies. The flexibility inherent in case study research provides an excellent counterpoint to the rigidity required in most quantitative research methods. Criticisms of this method are limited mainly to the difficulty in accurately accumulating and analyzing such voluminous amounts of data. Nevertheless, the explanatory case study methodology, employing all of the above factors, can be employed to test theories and hypotheses and to set the stage for richer, more indepth acquisition of knowledge.

Henry Harder

See also Credibility; Critical Sensemaking; Depth of Data; Hypothesis; Research Proposals

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EXPLORATORY CASE STUDY

The exploratory case study investigates distinct phenomena characterized by a lack of detailed preliminary research, especially formulated hypotheses that can be tested, and/or by a specific research environment that limits the choice of methodology. This form of case study is very often applied as a preliminary step of an overall causal or explanatory research design exploring a relatively new field of scientific investigation in which the research questions have either not been clearly identified and formulated or the data required for a hypothetical formulation have not yet been obtained.

Conceptual Overview and Discussion

Since exploratory case studies are by definition often applied in a research context that is not clearly specified and still requires data for the formulation of valid hypotheses, their broad concept provides the researcher with a high degree of flexibility and independence with regard to the research design as well as the data collection, as long as these fulfill the required scientific criteria of validity and reliability. An exploratory case study is therefore not limited in terms of its qualitative or quantitative specificity. However, it is this ostensible high degree of potential options that causes the critics of such studies to question their relevance in terms of research that goes beyond the elementary formulation of hypotheses leading toward continuative research, instead of considering this a valuable methodological approach in itself. It is here where the parallels between exploratory case study research and grounded theory become obvious.

Since the primary aim of exploratory case study is the exploration of the hitherto unknown—in terms of the scientific status quo—it benefits most from cases that make the characteristic investigation field issues easily apparent. An approximate transfer from extreme observations, including single case studies, to the general is common practice. This is especially relevant when the researcher is faced with certain limitations in terms of data access and/or a restrictive research environment in terms of the analyzed phenomenon; that is, where the preliminary collecting of data for eventual

generalization is a precondition to develop successive causal studies.

Robert Yin, probably the most prominent and seminal author with regard to case study research in general, defines exploratory case studies as a means to define the necessary questions and hypotheses for developing consecutive studies. He therefore highlights case study research's supportive role in developing continuative social research in general. This includes single and multiple case studies, which can also test proposed research approaches and open possibilities for a variety of subsequent research designs. Yin furthermore emphasizes the controversial status of this particular type of case study research within the scientific community compared to, for example, descriptive or explanatory case studies. The main reason for the controversy caused by exploratory case study is its intuitive approach, which is also its biggest advantage when phenomena are studied that are as yet unrecognized.

Although this definition is in accordance with the position stated in the previous sections, it ignores the usefulness of exploratory case study research in the study of social phenomena in their original context, especially when doing so by other means is difficult or impossible. This might be relevant for other kinds of case study research as well, but it is a predominant characteristic of the intuitive and flexible exploratory case study.

Application

Apart from the general elements common to all case study research (detailed, e.g., by Kathleen Eisenhardt), exploratory case studies are generally distinguished by the absence of preliminary propositions and hypotheses. Identifying these very often is the actual purpose of the study instead of being its origin. Consequently, clarifying the rational assumptions, the direction of the research and, most important, its purpose is crucial to the eventual success and outcome of a rigorous study on which subsequent research can be built. If, for example, the research protocols have been adapted during the study, this has to be clearly stated and justified to ensure maximum reliability.

Yin provides useful examples of the exploratory case study's application. In a study on the sustainability of innovations in the urban service

sector, the exploratory research was undertaken within the pilot test phase to answer the question regarding the innovations and services on which the research had to focus and the means that had to be applied, that is, the kind of research framework that had to be developed and appropriate measures that could be operationalized. At this point, the researchers had a broad understanding of the lifecycle of innovations, which ranged from the introduction to the actual routinization of the processes. However, an empirical research could not be built on this alone. Overall, the study included 12 cases and a telephone survey of 90 additional sites. The data collection and analysis became an iterative process: Every time new findings required it, the actual research protocol was altered and adapted to meet the specific site and case requirements, thus reflecting the intuitive nature of exploratory case studies. Eventually, six innovations and three services were identified that allowed the structuring of the necessary research framework and the formulation of hypotheses on which the subsequent empirical research could be based.

A typical example of exploratory case study research justified by the absence of preliminary research as well as a difficult to access research context can be found in Christoph Streb's study of aging workforce management in the automobile industry. The demographic aging of societies' effects on the age pattern of the available workforce is an emerging topic and an issue that has scarcely been researched. This is especially true with regard to blue-collar workers in industries such as automobile production. The researcher consequently decided on an exploratory case study in a large automobile plant due to the lack of existing propositions and hypotheses but especially due to the sensitivity regarding the potential constraints of the growing number of older blue-collar workers and the resulting challenges when entering the case site: In times of increasing productivity and resulting human resource overcapacity at the researched plant it was feared by some responsible managers that constrained older employees might be the first to be laid off in order to avoid resulting costs from overcapacity and physical constraints of the older workforce. The conducted research was seen as a potential threat by some. Deciding on a highly flexible and adaptive exploratory case study approach allowed the researcher to develop the necessary definitions, frameworks, and hypotheses for the subsequent explanatory research despite these challenges.

Critical Summary

As described above, exploratory case study research is often regarded as little more than a preliminary step toward specific and focused causal research to generate required hypotheses. Its degree of flexibility, for example in terms of data collection methods, and its-by definitionlack of specific, theory-based prior assumptions are often not considered a strength but a weakness. There is, of course, always the risk that these characteristics could be an excuse for inadequate and unscientific studies. Nevertheless, criteria such as validity and reliability, which are applicable in all research methods, should serve as clear indications of the soundness of the research. Such criticisms might, however, result in a general underestimation of the potential value of an exploratory case study, since this method can provide value beyond the provision of a hypothesis. This is especially true with regard to emerging topics and fields of research as well as difficult to access research settings.

Christoph K. Streb

See also Descriptive Case Study; Explanatory Case Study; Extreme Cases; Grounded Theory; Theory-Building With Cases

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EXTENDED CASE METHOD

The extended case method (ECM) is an ethnographic research method that focuses on a detailed study of concrete empirical cases with a view to "extract" general principles from specific observations. Typically, a researcher would participate in and observe a number of related events and actions of individuals and groups over an extended period of time. The researcher would then construct his or her (ethnographic) story and theorize about a social phenomenon, rather than start with a theory to explain an empirical reality. ECM is at once a method of data collection, analysis, and theory building. Both the conceptualization and the application of the ECM have changed over time. This entry describes the emergence and development of ECM, its insights, and limitations and its potential areas of application.

Conceptual Overview and Discussion

The origin of ECM goes back to the 1940s. It was the then newly established Manchester School of Social Anthropology, led by South African-born British social anthropologist Max Gluckman, that invented and used the method to describe and theorize how everyday practices in specific places were related to larger structures and processes. Gluckman, and his students such as V. Turner as well as his associates, including J. C. Mitchell, observed and analyzed the actions of individuals and groups to arrive at an understanding of social structure. For example, Gluckman used an event of the ceremonial opening of a bridge in Zululand, South Africa, to illustrate the extent to which Zulus and Whites were involved in a single system rather than being solidly separated as Blacks and Whites. The Manchester School called events such as the bridge opening ceremony "situations," and their analysis of such situations was therefore referred to as situational analysis. Thus, sometimes the term ECM is used interchangeably with situational analysis, which is itself sometimes referred to as processual analysis by Gluckman's students, for example, B. Kapferer.

It was not the use of case study as such but how the case studies were used that gave ECM and situation analysis a place of pride in the history of

qualitative analysis. The Manchester School used extended cases separated by time and microcontexts to produce an image of social life, even of village communities, that is messy, conflictual, and changing. Such a view of social life upset the seamless equilibrium model of society that was established by the then dominant paradigm of structural functionalism that thought of society as generally orderly with every part (persons, institutions) playing its role to ensure the overall smooth functioning of the system. In contrast, ECM and situational analysis focused ethnographic attention on "trouble cases" such as situations of conflict and individual actions that did not conform to presumed societal norms. By doing so, Gluckman and his students opened themselves to the messy actualities of social life and thus ventured into the possibility of discovering unforeseen insights on social processes.

Their generalizations emerged from an examination of series of interconnected case studies, not from the application of a grand theory. Thus, theory was built from the ground up, as it were. Looked at from today's perspective, the Manchester School's approach remained by and large structural analysis and thus did not fully allow the discursive practices inherent in case studies, but it clearly opened up an analytic horizon that found its fuller expression in later works.

More recent (1980s–present) elaboration and application of ECM has been influenced by the emergence of poststructuralist works such as that of P. Bourdieu's practice theory and its emphasis on agency. Where the Manchester School used ECM to highlight the effect of extralocal factors such as colonialism on African society, recent elaborations sharpen the method's relevance for shedding light on the micro ramifications of such postcolonial practices and global forces as free market ideology and how these affect local cultures.

In what looks like an extended ethnographic follow up of the Manchester School's African ethnography, Michael Burawoy, for example, uses ECM in his study of the copper industry in postcolonial Zambia. Burawoy produced a fascinating ethnography that illustrates the interconnection, albeit unequal, between the individual black Zambian workers, White industry managers, the newly independent Zambian state, and the world copper market controlled by advanced capitalist nations. Burawoy arrives at this big picture by

connecting his extended (participant) observations from various concrete situations. The recent reworking of the ECM, like that of Burawoy, is in tune with the postmodernist emphasis on reflexivity that became a general trend in the social sciences, most strikingly since the 1980s. As it applies to sociological and anthropological research, reflexive ethnography seeks engagement with the subject, as opposed to objectivity (note that the postmodernists think objectivity is an illusion).

Applying ECM reflexively would prompt one to be aware of the effects of power on the research context and raise the question of who sets the research agenda and whose interest research serves. In the conventional anthropological research context where the researcher is generally a White (often male) and the subjects are generally non-Western natives, the need to be aware of the effect of power on the research is very acute. In such contexts, the relationship between the researcher and the researched is colored by the history of power differential between White colonialists and natives as well as the contemporary context of tourism and NGO interventions where a White person comes to these villages generally as a rich and powerful person visà-vis the villagers or unemployed city youth.

But the contemporary research context is changing and the actors are more diverse. Nonetheless, in a qualitatively different sense the power question remains important in research contexts where the researcher might be a non-Western man or woman doing research in his or her own country. For example, Data D. Barata, a male Black African, recalls his research encounter in his native Ethiopia where he would appear relatively more powerful vis-à-vis his villager informants. As a university graduate, at times employed by a Western institution, he was materially richer than the average villager or unemployed youth. But part of the perception of power of the native researcher by the researched comes from associating such researchers with state bureaucrats who strongly affect the lives of villager citizen subjects. In such a context, an extended stay with one's informants following ECM is crucial to win the trust of the informants.

Application

The application of ECM entails mapping out the power-laden interaction between the local, the

national, the transnational, and the global. While there should not be any illusion about the power disparity between actors differentially situated in the local–global gradient, every actor is imbued with agency—the ability to influence to a lesser or greater extent what actually happens on the ground. Therefore, an application of the ECM in the contemporary context would entail documenting how the global, the national, and the local are mutually constitutive of each other.

The adaptation of ECM in recent years has gone beyond academic practices of sociology and anthropology. The method has been found relevant in the field of consumer research studies, especially in areas such as consumer choices, use of new technologies, consumer satisfaction, consumer emancipation, cultivation of consumer identity through consumption of some brands, and generally to understand consumer culture. This emerging area of application is attracting enthusiasm, especially from those who are interested in sharpening marketing tools.

Critical Summary

Trying to adapt or apply the ECM as an ethnographic method to the fast-paced life situation of late capitalism, one has to be aware of some limitations of the method. ECM is not intrinsically a rapid method. Therefore, it may not satisfy the needs of anyone looking for a "hit and run" method of data collection or analysis. Also, applying ECM and participant observation in a hastened context of the capitalist urban milieu may not give the researcher sufficient time to get past the initial resentment of intrusion that is often felt by any person or group of an "outsider" (posing as researcher) wanting to observe their lives that closely. The pressure to quickly produce results also comes with dwindling funding for an extended observation of social situations.

These limitations notwithstanding, ECM as an ethnographic method of doing extended observation of human interactions, choices, and events to understand how the human world works has emerging potential of wider application. Global interconnections are real and further deepening, even though the world is still experienced for the most part locally and concretely. Therefore, an extended observation and analysis of these concrete

events and diversely situated experiences offers great promise for making sense of an otherwise truly complex world.

Data D. Barata

See also Agency; Participant Observation; Postmodernism; Poststructuralism; Power; Reflexivity; Situational Analysis

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EXTENSION OF THEORY

Case studies investigate phenomena in their reallife context, potentially using data collected in a number of ways, both active (interviews, participant observation, direct observation) and passive (archival and physical evidence), and the theories resulting from them allow an in-depth understanding of why and how an instance happened as it did. When using apparently relevant extant theory to develop questions about the phenomenon under study, that extant theory can be built upon and extended through the use of multiple case studies to induce relevant new constructs and propositions related to how it particularly applies in a variety of situations. As noted by Robert Yin, multiple cases are like multiple experiments, to which the previously developed theory can be compared and extended to account for the empirical results of the case study. The examination of the rich data collected in these varied theoretically significant settings exposes the additional constructs and relationships that must be included in the theory to reflect the actual complete case study data.

Conceptual Overview and Discussion

There are several ways case studies can be used to assess the significance of theoretical additions to extant theory. These include using a comparative case method to tease out differences between the cases, thus highlighting important differences between them for further analysis (an ANOVA/ MANOVA type of study). A case survey similarly examines potentially masses of cases to inspect the effects of particular factors on each of them, allowing for a quantitative assessment of patterns across a volume of case studies (a multiple regression type of study, notably Larsson and Finkelstein's study of acquisition success). When a research question is closely bounded within the context of an existing theory, using a set of theoretically relevant case studies to understand complex processes that occur in the context of this theory is appropriate.

Application

The following paragraph is an example of an application of extension of theory. For researchers exploring questions of how organizations can maintain and improve performance even in times of dwindling external resources, there is nowhere else to look but at how effectively they use their internal resources. The most relevant theoretical base from which to examine such a question is that encompassed within the theory known as the resource-based view of the firm, which suggests that the basis for a competitive advantage of an organization lies primarily in the application of the bundle of valuable resources at the firm's disposal. In this context, the concept of dynamic *capabilities*, a foundational internal resource allowing an

organization to build ways to adapt to changing environments, is an appropriate starting point. Unfortunately, however, there is a gap in the literature addressing the microprocess questions of *how* actors make these internal capabilities work toward improving the organization's ability to perform. As such, it is necessary to study multiple cases of how these have worked in and across organizational settings to expose important procession dynamics: how and why certain processes unfold over time.

Two different studies of how managers at different levels in public sector healthcare organizations contribute to improved performance explicate the use of multiple case studies to extend existing theoretical models for how this might work. For example, Graeme Currie and Stephen Procter's study of organizational performance in the United Kingdom's National Health Service exemplifies work that successfully uses multiple case studies in a single industry setting to be able to generalize theoretically on the basis of the data collected from middle managers in four different hospital groups. This particular study extended previous theory on the role that middle managers play in creating and enacting strategies directed toward performance improvement. The findings of this work introduce a previously unrecognized set of contingency factors impacting the strategic role that middle managers are able to play in this effort, introducing the importance of role conflict and ambiguity-provoking behaviors that impacted outcomes.

Similarly, Amy Pablo, Trish Reay, James Dewald, and Ann Casebeer's study of a public sector health organization looked at how that organization used dynamic capabilities as a strategic approach to improve performance during a time of decreasing financial resources. In this study, they examined how different key players at multiple levels and sites in an organization followed a major strategic approach directed at using internal resources. Since the primary research questions of this study related to how public sector organizations attempted to use their internal resources to improve organizational performance, extension of the dynamic capabilities theoretical base to include more processual constructs is appropriate; this extension obviously requires the use of the rich qualitative data achievable with case studies. The findings of this study reflected an extension to the basic dynamic capabilities theoretical framework by identifying a phase and role-based set of propositions for how this internally focused strategy actually works. From this work it was even suggested that the key players had to be able to move around within the boundaries of the previously defined theoretical framework, occupying different spaces covering the cognitive, social, and behavioral elements over time as circumstances dictated; thus both dimensional and temporal elements became apparent through the multiple case study approach to studying this phenomenon through the identified theoretic lens.

Based on the applications described above, we can see how well-received extant theories were expanded and enhanced when multiple case studies using them as a foundation were found to be incomplete in their explanation of the data actually captured from theoretically logical samples of cases.

Critical Summary

Extension of theory using multiple case studies not only expands the value of a particular theoretical perspective, but also helps to define the boundary conditions of the original theory. The challenge is to assess whether there are unique attributes to the particular theoretical application or its setting that may limit generalizability of the extension. Further research using more fine-grained examinations of the potentially limiting attributes is warranted.

Amy Pablo

See also Depth of Data; Explanation Building

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EXTREME CASES

The extreme cases approach is employed when the purpose is to try to highlight the most unusual variation in the phenomena under investigation, rather than trying to tell something typical or average about the population in question. Extreme cases can be selected based on the maximum variation measured by different factors; however, opposite and outlier status can also be used as criteria.

Conceptual Overview and Discussion

When starting a case study project, one of the most important decisions to be made is selecting a strategy for sampling the cases. As Bent Flyvbjerg has pointed out, the selection can be based on random sampling, as is done in more traditional quantitative studies. However, the very nature of the case study research, as an explorative mode of conducting research, more often leads to the use of information-oriented selection strategies instead of randomization. The information-oriented selection strategy is a deliberate way of selecting the cases for the study. It is based on the idea of trying to find paradigmatic cases, critical cases, maximum variation cases, or extreme or deviant cases with respect to the study population and the questions being posed to this group. When using the maximum variation strategy, cases that reflect both the highest and lowest status with respect to the variable(s) being measured will be presented to capture the extent of the diversity that has been observed in the study population.

Extreme cases may be selected during two different phases of case study research: (1) when determining the method of data collection and selecting the cases from a larger pool of possible cases available for study, and (2) after doing the preliminary analysis of a larger pool of cases and deciding to concentrate on a more in-depth analysis of one or more extreme or deviant cases, which typically leads to reporting these cases as a separate part of the study or as an independent substudy.

Application

The main purpose of selecting extreme cases in the data gathering phase is to find a starting point for the study, and to determine the methods of measurement and data analysis. The researcher will select cases that demonstrate the most obvious differences from the majority of the sample, in terms of their available background data, that is relevant to the study questions. He or she will then inquire further, and in a very detailed way, about these participants in order to develop a holistic picture of these exceptional cases. A very common way of making decisions about which cases to select is to consider what previous data (e.g., test results) that have been acquired from the study population suggest about which cases will prove most informative. For example, in a study concerning student characteristics that are related to dropping out of high school, by Christine Christle, Kristine Jolivette, and C. Michael Nelson, the schools selected for closer examination were selected based on the lowest and highest rates of student attrition reported during previous phases of a larger study.

It is important to draw upon theoretical assumptions of which individual traits (e.g., gender, socioeconomic status) may influence variation in the research phenomena under question. In some studies, it is relevant to sample extreme cases from both males and females in a sample. Similarly, when comparing different countries, extreme cases may need to be selected from populations that experience the same kinds of economic circumstances (e.g., the same level of industrialization) in order to draw meaningful comparisons between them.

For organizing and presenting the study findings, it is often useful to apply the extreme cases approach to achieve a more in-depth understanding of the nature of the phenomenon under study. This is highly recommended in the event of having a very large number of cases (more than 20) in the study, and when it is not effective to present all the cases in a detailed fashion. By using extreme cases, the researcher will more effectively demonstrate the main points of the study, as well as explain the extreme outcomes, diverse solutions, and practices of case participants in a succinct fashion. For example, in a study by Markku Jahnukainen and Tero Järvinen, only two extreme cases of the life courses of 52 former high-risk

youth under investigation were presented to demonstrate the observed diversity in the trajectories of these at-risk adolescents.

At times, a remarkable set of extreme cases cannot even be displayed in the main report of a study, as such data may distract the reader from the central findings of an investigation. In such cases, it is a good idea to publish a technical report, or else place these case descriptions in the appendices of the main report. To present the extreme cases optimally, detailed data should be collected to build profiles on all of the cases. The research data can be qualitative or quantitative. Both kinds of data can often be used, with the extreme cases usually presented in studies that employ mixed methods. On the whole, the cases will be discussed first in a general way. The differences and similarities between cases as well as the controversies that emerge from them will be discussed in a more specific fashion later in the report. The report will also be presented in tables or figures that reflect key findings discussed in the text. One typical way of presenting the cases is in a story format. This is a good solution, in particular if the data are derived from a longitudinal design and it is possible to organize the information in chronological order. Even though, in most situations, only one or two extreme cases are selected in a study, at times several sets of "extreme cases" can be used, depending upon how many independent variables or measures the study contains.

Critical Summary

The extreme cases approach is a useful tool for both organizing one's data collection and presenting the findings from a larger set of case studies. It is a powerful way to illustrate the diversity in the phenomenon being studied and to demonstrate the theoretical implications of the case study research. However, the challenge in these kinds of case studies is to communicate the results in such a way that the reader can follow the researcher's decision-making process in both deciding to employ the extreme cases approach and in selecting the specific cases to be presented.

Markku Jahnukainen

See also Comparative Case Study; Multiple Sources of Evidence; Paradigmatic Cases

Further Readings

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FACTOR ANALYSIS

A measure (e.g., a test, a questionnaire or a scale) is useful if it is reliable and valid. A measure is valid if it measures what it purports to measure. Validity can be assessed in several ways depending on the measure and its use. Factorial validity is a form of construct validity that is established through a factor analysis. Factor analysis is a term that represents a large number of different mathematical procedures for analyzing the interrelationships among a set of variables and for explaining these interrelationships in terms of a reduced number of variables, called factors. A factor is a hypothetical variable that influences scores on one or more observed variables. Below is a short introduction to some popular types of validity used by researchers and a specific introduction to factor analysis.

Conceptual Overview and Discussion

Types of Validity and Validation

Content validation is employed when it seems likely that test users will want to draw references from observed test scores to performances on a larger domain of tasks similar to items on the test. Typically, it involves asking expert judges to examine test items and judge the extent to which these items sample a specified performance domain. There are two types of content validity: face validity and logical validity. A test has face validity if an examination of the items leads to the

conclusion that the items are measuring what they are supposed to be measuring. Logical or sampling validity is based on a careful comparison of the items to the definition of the domain being measured.

Criterion-related validation is a study of the relationship between test scores and a practical performance criterion that is measurable. The criterion is the thing of interest or the outcome researchers are concerned about. When a test score, X, can be related to a criterion score, Y, criterion-related validity can be determined. The validity coefficient, $\Delta_{\rm XY}$ can be based on a predictive or a concurrent study. A predictive-validity coefficient is obtained by giving the test to all relevant people, waiting a period of time, collecting criterion scores, and calculating the validity coefficient. When a test is used to predict future behavior, predictive validity can be calculated.

Construct validation is appropriate whenever the test user wants to draw inferences from test scores to a behavior domain that cannot be adequately represented by a single criterion. A test's construct validity is the degree to which it measures the behavior domain or traits that it was designed to measure. More specifically, construct validity can be understood as the extent to which the behavior domain or the constructs of theoretical interest have been successfully operationalized. For example, a researcher may be interested in determining clients' satisfaction with healthcare services. Since "satisfaction with healthcare services" is a construct that cannot be adequately represented by a criterion or defined by a universe

of content, the researcher chooses to develop a questionnaire of 20 items in order to tap the construct "satisfaction" and proceeds to collect the data. The question is how does the researcher know that what he or she is measuring through the questionnaire is actually and purely clients' satisfaction with healthcare services and not something else or a mixture with other constructs such as clients' degree of confidence in the medical profession? In this case, a construct validation is appropriate.

Establishing construct validity is an ongoing process that involves the verification of predictions made about the test scores. Procedures for construct validation may include correlations between test scores and designated criterion variables, differentiation between groups, factor analysis, multitrait—multimethod matrix analysis, or analysis of variance components within the framework of generalizability theory. The following contains introductions and explanations of one of the procedures for determining construct validity: the factor analysis.

Factorial validity is a form of construct validity that is established through a factor analysis. Factor analysis is a term that represents a large number of different mathematical procedures for analyzing the interrelationships among a set of variables and for explaining these interrelationships in terms of a reduced number of variables, called factors. A factor is a hypothetical variable that influences scores on one or more observed variables. For example, let's look at the following hypothetical correlation matrix:

		TEST		
		1	2	3
	1	1.00	.99	.94
Test	2	.99	1.00	.97
	3	.94	.97	1.00

Although there are three test scores being correlated, it is quite obvious that only one dimension/factor is being measured, because of the high correlations among the test scores: This is based on the assumption that tests measuring the same trait should correlate highly, converging on the

trait. Instead of requiring three scores for each person, one score alone could be sufficient.

The preceding example involves an "educated guess" method of factor analysis. This is possible if the correlation matrix is small and simple. But most of the correlation matrices researchers deal with are more complex, and the "educated guess" method of factor analysis is either difficult or unreliable (or both). However, the logic underlying the above simple example in terms of determining the number of factors remains the same for complex cases. This logic is helpful in determining the construct validity of a test, with the help of the SPSS factor procedure. Briefly: the correlation matrix is approximated by the factors (usually fewer than the number of variables). The researcher hopes this approximation is a good one, that is, the original correlation matrix is close to the one produced by fewer factors (in other words, has small residual when the original correlation is compared to the factor analysis produced correlation). There are two general types of factor analysis, confirmatory factor analysis (CFA) that is used when the researcher knows the number of factors and can specify or constrain the loadings of variables, and exploratory factor analysis (EFA), where all loadings are free to vary. This entry discusses only exploratory factor analysis.

To go back to the example on "satisfaction with healthcare services" cited earlier, it is not difficult to envisage that if the 20-item questionnaire is really a valid measure of the construct "satisfaction with healthcare services," a factor analysis on the scores of the 20-item questionnaire should result in one factor that can explain most of the variance in these 20 items. But if the 20-item questionnaire is instead measuring two different behavior domains (e.g., "Satisfaction with healthcare services" and "Confidence in the medical profession"), factor analysis on the scores of the 20-item questionnaire should result in two factors, with items measuring "satisfaction" having high factor loadings on one factor and items measuring "confidence" loading highly on the remaining factor. The meaning of factor loadings is discussed in greater detail in a later section. In the meantime, just imagine that a factor loading is a number that is very much like a correlation coefficient in size and meaning. When a factor analysis is conducted on a correlation matrix, tests that are influenced by certain factors are said to have high factor loadings or to load highly on those factors.

Application

The following sections illustrate the use of factor analysis on a small study involving a group of adolescents who have difficulty controlling their aggressive behaviors. The data are a subset of a real case study conducted on a sample of individuals who were referred to professionals for counseling. The therapists developed the following questionnaire to help them gauge the aggressiveness of the adolescents involved. The data are provided as well as the SPSS output of the factor analysis procedure.

The following illustrative example contains 6 items extracted from a scale designed to measure adolescents' attitude toward the use of physical, aggressive behaviors in their daily life. Each item in the scale refers to a situation where aggressive physical behavior is or is not used. Adolescents are asked whether they agree or disagree with each and every item on the scale. Adolescents' responses to the items are converted to scores of either 1 or 0, where 0 represents disapproval of the use of aggressive physical behaviors. Below are the contents of the 6 items as well as the scores of 14 adolescents on these 6 items:

Item No.	Content
1	When there are conflicts, people won't
	listen to you unless you get physically
	aggressive.
2	It is hard for me not to act aggressively if
	I am angry with someone.
3	Physical aggression does not help to
	solve problems, it only makes
	situations worse.
4	There is nothing wrong with a husband
	hitting his wife if she has an affair.
5	Physical aggression is often needed to
	keep things under control.
6	When someone makes me mad, I don't
	have to use physical aggression. I can
	think of other ways to express my anger.

The following is the data obtained from 14 adolescents:

	Item					
Person	1	2	3	4	5	6
1	0	0	0	0	0	0
2	0	0	0	0	1	0
3	1	0	1	1	1	0
4	1	1	1	1	1	1
5	1	1	1	1	1	1
6	0	0	1	0	0	0
7	0	0	1	1	1	0
8	1	1	1	1	1	0
9	0	0	0	1	0	0
10	0	1	0	1	0	1
11	1	1	1	0	1	1
12	0	0	1	1	1	1
13	0	0	0	0	0	0
14	0	0	0	0	0	0

Factorial validity of the above scale can be assessed using factor analysis. The primary purpose of conducting factor analysis on the scores of the 6-item scale is to find support for the assumption that this 6-item scale is measuring a single construct: "adolescents' attitude toward the use of physical, aggressive behavior in daily life." If this assumption is supported, a factor analysis on this set of data should point to a one-factor solution.

There are two major phases in the factor analysis, namely, the factor extraction phase and the rotation phase. Several different strategies are available for each of the two phases in the SPSS factor procedure. The following methods can be chosen to carry out the extraction phase in the SPSS factor procedure: principal components analysis (the default); principal axis factoring; maximum likelihood; alpha factoring; image factoring; unweighted least squares; and generalized least squares. In the rotation phase, the following methods are available in the SPSS factor procedure: varimax rotation (the default); equamax rotation; quartimax rotation; direct oblimin rotation; and no rotation.

For the purpose of the present analysis, the principal components analysis (pc) and the varimax rotation methods will be used, since these two methods are the defaults.

Conducting Factor Analysis Using SPSS OUTPUT SPSS Outputs and Discussions

The initial part of the output contains a correlating matrix showing the correlation coefficients

among the items. Please note that the 1-tailed Significance of the Correlation Matrix will also be given if the SPSS correlation procedure is used. However, the SPSS program used here will not give the 1-tailed Significance.

Table I Correlation matrix

		ITEM1	ITEM2	ІТЕМ3	ITEM4	ITEM5	ITEM6
ITE Correlation ITE ITE	ITEM1	1.000	.689	.645	.344	.645	.378
	ITEM2	.689	1.000	.344	.344	.344	.689
	ITEM3	.645	.344	1.000	.417	.708	.344
	ITEM4	.344	.344	.417	1.000	.417	.344
	ITEM5	.645	.344	.708	.417	1.000	.344
	ITEM6	.378	.689	.344	.344	.344	1.000

Table 2 Communalities

	Initial	Extraction
ITEM1	1.000	.725
ITEM2	1.000	.878
ITEM3	1.000	.805
ITEM4	1.000	.382
ITEM5	1.000	.805
ITEM6	1.000	.790

Note: Extraction method: Principal component analysis.

In the above correlation matrix the largest correlation coefficient occurs between item 3 and item 5 (i.e., r = .70833). The second largest correlation coefficient is .68889, which occurs between items 1 and 2 as well as between items 2 and 6. The smallest correlation coefficient is .34427, and all of the following 7 pairs of items have this correlation coefficient: items 2 and 3; items 2 and 5; items 4 and 1; items 4 and 2; items 4 and 6; items 6 and 3; and items 6 and 5. The next smallest correlation coefficient is .37778, which occurs between items 1 and 6. Based on the above correlation matrix and using the crude method of "educated guess" factor analysis, it can be suggested that there are possibly two factors. Item 2 and item 6 seem to load on one factor and items 1, 3, and 5 on the other. However, item 2 is also highly correlated with item 1 (r = .68889). Besides, item 4 itself can possibly load on another factor (because it is not

highly correlated with any one of the other factors), but since the correlation coefficients between item 4 and each of items 3 and 5 amount to .41667, which cannot be regarded as particularly low, it can be postulated that item 4 may load on the same factor as items 3 and 5.

However, the above suggestions are based on very crude analyses and are not very conclusive. More sophisticated analyses have to be performed by the SPSS factor procedure. The following section of the output consists of the matrices and statistics obtained from using the method of the "principal components analysis" in the extraction phase of the factor procedure (see Tables 2–5).

Extraction 1 for Analysis 1, Principal-Components Analysis (PC)

What principal components analysis basically does is transform a set of correlated variables (in this case, each item is a variable) to a set of uncorrelated variables (or principal components). In the context of the present phase of factor analysis, these uncorrelated variables are the factors. In principal components analysis, linear combinations of the observed variables are formed. The first principal component (or factor in this context) is the combination that accounts for the largest amount of variance in the sample. The second principal component accounts for the next largest amount of variance and is uncorrelated with the first. Successive components explain progressively smaller portions of the total sample variance, and all are uncorrelated with each other.

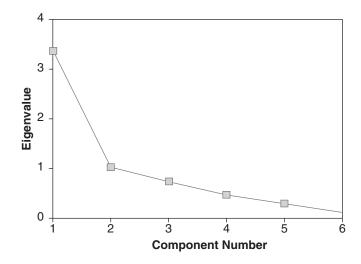


Figure I Scree plot

Table 3 Total variance explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.361	56.025	56.025	3.361	56.025	56.025	2.474	41.239	41.239
2	1.024	17.071	73.096	1.024	17.071	73.096	1.911	31.857	73.096
3	.734	12.227	85.323						
4	.471	7.846	93.169						
5	.292	4.861	98.030						
6	.118	1.970	100.000						

Note: Extraction method: Principal component analysis.

The matrix under the heading "Initial Statistics" contains the solution of the principal components analysis when all possible factors are included in the solution. It is possible to compute as many principal components as there are variables; in this example, there can be as many as 6 principal components or factors. These Initial Statistics basically tell us the amount of variance explained by each factor as well as the percentage of the total variance in the sample attributed to each factor. To make more sense out of these statistics, we need to understand how the total variance of the sample is worked out.

The total variance is the sum of the variance of each variable (or item, in this case). In the principal components analysis, all variables and factors are expressed in standardized form, with a mean of 0 and a standard deviation of 1. Since there are 6 items in this example and each is standardized to have a variance of 1, the total variance is 6 in this example.

The *eigenvalue* is the amount of variance explained by each factor. The first column of "Initial Statistics" contains 6 eigenvalues, one for each of the possible 6 factors, respectively. The

Table 4 Component matrix

	Component		
	1	2	
ITEM1	.848	-7.500E-02	
ITEM2	.762	.545	
ITEM3	.785	435	
ITEM4	.610	-9.618E-02	
ITEM5	.785	435	
ITEM6	.676	.577	

Note: Extraction method: Principal component analysis, two components extracted.

sum of these 6 eigenvalues is equal to the total variance of the sample: that is, 6. The 6 eigenvalues are arranged in descending order, with the largest at the top of the column and the lowest at the bottom. Among the 6 factors, factor 1 accounts for the largest amount of variance in the sample, while factor 6 contributes the smallest amount. For factor 1, the corresponding eigenvalue is 3.36147, which means that out of a total variance of 6, 3.36147 can be attributed to factor 1. It follows naturally that the percentage of variance accounted for by factor 1 is 56.0%, which is obtained from the following computation: 3.36147 divided by 6 times 100%. For factor 6, the eigenvalue and the percentage of variance accounted for is 0.11817% and 2.0%, respectively.

A brief introduction of the factor analysis model is necessary in order to understand the meaning of communality. Under the factor analysis model, the z-scores on variable i are seen as combinations of basically two components, namely, summation of scores on m common factors, and scores on the factor unique to variable i. The factor analysis model is best illustrated by the following equation:

$$z_{i} = \sum_{k=1}^{m} a_{ik} f_{k} + u_{i}$$
 (1)

where z_i represents z-scores on variable i, a_{ik} represents the loadings of variable i on factor k, f_k represents scores on common factor k, and u; represents scores on the factor unique to variable i. A common factor is a factor with which two or more variables are correlated and hence contributes to the observed correlations between these variables; it is actually the same as the "factor" that we have consistently been referring to in the above discussion. A unique factor is correlated with only one variable (a unique factor, therefore, should be uncorrelated with any of the common factors and should also not be correlated with any unique factors for other remaining variable) and hence does not account for correlations between variables.

An important question in a factor analysis is what portion of a variable's variance is associated with variance on the common factors (i.e., the proportion of the variable's variance that is explained by the common factors). This amount is called communality or the common variance and is calculated by

$$h^{2}_{i} = \sum_{k=1}^{m} a^{2}_{ik}$$
 (2)

where h²_i is the communality of variable i for uncorrelated factors. The proportion of a variable's variance associated with variance on its unique factor is called the uniqueness or the unique variance and is calculated by

$$u_{i}^{2} = 1 - h_{i}^{2} \tag{3}$$

where u_i^2 is the uniqueness of variable i. Theoretically, $u_i^2 = s_i^2 + e_i^2$, where s_i^2 is the specific variance of a variable (i.e., the portion of a variable's true score unrelated to true score variance on any of the other variables included in the factor analysis), and $e^2_{\ i}$ is the error variance. Therefore, the total variance (which has been standardized as 1) can be expressed by

$$h_{i}^{2} + s_{i}^{2} + e_{i}^{2} = 1.$$
 (4)

The communality is usually a number less than 1. In the "Initial Statistics" matrix, all the communalities are 1. This is because all factors are included in this solution. When all factors are included in the solution, all of the variance of each variable is accounted for, and there is no need for a unique factor in the model. The proportion of variance accounted for by the common factors (a total of 6 factors in this case), or the communality of a variable, is therefore 1 for all the variables.

Determination of the Number of Factors in the Model

However, if all the possible factors are included in the solution, there is nothing gained since there are as many common factors (or simply factors or principal components) as variables. A common criterion used to determine the number of factors to use in the model is that only factors that account for variances greater than 1 (i.e., the eigenvalue is greater than 1) should be included. This is in fact the default criterion in the SPSS factor procedure. The rationale behind this criterion is that factors with a variance less than 1 are no better than a single variable, since each variable has a variance of 1. In the present example, the computer procedure suggests that a model with two factors may be adequate to represent the data (as shown in the "Factor Matrix" and the "Final Statistics"). It can be seen from the Final Statistics that each of these two factors has an eigenvalue greater than 1 (i.e., 3.36147 and 1.02428, respectively) and that together they account for more than 73% of the total variance of the sample.

Another method that can be used to decide the number of factors in the model is to inspect the scree plot, a plot produced between the Initial Statistics and the Factor Matrix in the output. Typically, the plot should show a distinct break between the steep slope of the large factors and the gradual trailing off of the rest of the factors. The gradual trailing off is called the scree, and experimental evidence indicates that the scree begins at the kth factor, where k is the true number of factors. The scree plot in the present output basically supports a 2-factor solution, because the scree begins at the second factor. (There may be some disagreement on whether factor 2 should be included in the model because its eigenvalue just barely exceeds 1 and it is also likely that "it is already on the scree" in the scree plot; however, since this factor explains more than 17% of the total variance in the sample, which when added to the first factor gives more than 70% of the variance, it would not be unreasonable to include it in the model.)

Factor Loadings and Communality

The figures produced in the Factor Matrix are the factor loadings. To put it simply, the factor loading of a variable on a factor represents how much weight is assigned to the factor. When the factors are orthogonal (i.e., when they are uncorrelated with each other), the factor loadings are also correlations between the factors and the variables. Since the principal components analysis is used to extract factors in this example, the resulting two estimated factors must be orthogonal. Hence, from inspecting the figures in the Factor Matrix, we can say, for example, that the correlation between item 2 and factor 1 is .7624 and that the correlation between item 6 and factor 2 is .57746, and so on.

Since the two resulting factors are orthogonal, the communality shown in the Final Statistics can be calculated from the appropriate factor loadings in the Factor Matrix using equation 2.

For example, the communality of item 1 can be obtained from adding the squares of its factor loadings on factor 1 and factor 2, that is, $.72545 = (.84843)^2 + (-.07500)^2$. This communality of item 1 means that 72.545% of the variance of item 1 is explained by the two common factors.

Relationship Between Factor Loadings and Variable Intercorrelations

One of the basic assumptions of factor analysis is that the observed correlation between variables is due to the sharing of common factors. Therefore, the correlation between a pair of variables has a very important relationship to the loadings of the two variables on the factors. When the factors are orthogonal, the general equation relating the variable intercorrelations to factor loadings is

$$p_{ij} \sum_{k=1}^{m} a_{ik} a_{jk} \tag{5}$$

where p_{ij} is the correlation between scores on variables i and j (in this example, it is the correlation between items i and j), a_{ik} and a_{jk} are respectively the factor loadings of variable i and j on factor k, and m is the number of factors. When there are two factors, as in this example, the relationship is:

$$p_{ij} = a_{i1} a_{j1} + a_{i2} a_{j2}$$
.

As an illustration, the factor loadings of item 4 and item 6 on factor 1 and factor 2 are used to compute the correlations between item 4 and item 6: p_{46} is therefore equal to the sum of $a_{41} a_{61}$ and $a_{42} a_{62}$, which is .35690 (this value is obtained from (.61204)(.67586) + (-.09618)(.57746). When

compared with the observed correlation coefficient between items 4 and 6 (i.e., r_{46} = .34427) in the correlation matrix given in the output, there is a difference of .01263. This difference is called a residual. For this set of data and analysis, this residual is already the smallest. The biggest residual occurs between items 1 and 4, which is equal to .18069 (i.e., the difference between the correlation coefficient of .52496 computed from equation 5 and the observed correlation coefficient of .34427 from the correlation matrix in the output).

There is a major explanation for the occurrence of residuals (i.e., the differences between correlations among pairs of items calculated from the equation and their corresponding observed correlations): For correlation calculated for a sample, equation 5 will be satisfied exactly only for N-1 factors, where N is the number of variables. It follows that, in this example, equation 5 can be satisfied exactly only in a 5-factor solution. Since the present calculations are based on a 2-factor solution that explains about 73% of the total variance in the sample, the discrepancies between the observed and computed correlations are expected to occur.

Factor loadings shown in the Factor Matrix are usually called initial or unrotated loadings because they are obtained by using a method that permits convenient calculation of the loadings. Typically, researchers do not attempt to interpret these unrotated loadings of the Factor Matrix. This is because very often the variables and factors in this matrix do not appear correlated in any interpretable pattern and it is usually difficult to identify meaningful factors based on this matrix. The Factor Matrix of unrotated loadings in this example is not easy to interpret either. All items have very high loadings on factor 1, and if we follow the conventional rule that loadings less than .30 are considered unimportant, 4 items (i.e., items 2, 3, 5 and 6) also have very high loadings on factor 2. Even if we raise the critical level to .50, we still have item 2 and item 6 loading highly on factor 2.

The rotation phase of factor analysis attempts to transform the initial matrix into one that is easier to interpret. (The process of transforming the initial matrix into one that is easier to interpret is complicated and will not be explained here. Basically, all methods of rotation will result in a set of transformation equations used to transform the initial factor loadings so that they approximate

simple structure). With reference to the present example, when the items have been plotted on a two-dimensional plot using the initial factor loadings as coordinates, with different factors represented by different axes (i.e., factor 1 on the x-axis and factor 2 on the y-axis), the rotation phase of factor analysis basically involves finding two new axes, one that passes closer to the first cluster and a second that passes closer to the second cluster. The purpose of rotation is to achieve a simple structure. Essentially, the simple structure criteria imply that each variable should have large loadings on as few of the factors as possible (preferably one) and low or zero loadings on the remaining factors. A Factor Matrix that satisfies the simple structure criteria permits the factors to be differentiated from each other, or to put this in another way, such matrix would allow easier identification of sets of closely related variables.

There are two classes of rotations: orthogonal and oblique. Orthogonal rotations result in uncorrelated factors, whereas oblique rotations result in correlated factors. Both classes of rotations involve finding new axes in a factor loadings plot so that the axes pass closer to clusters of variables. But the new axes must be perpendicular for orthogonal rotations, whereas the new axes of an oblique solution are not perpendicular. Rotation does not affect the goodness of fit of a factor solution; that is, although the Factor Matrix changes, the communalities and the percentage of total variance explained do not change. Factor loadings resulting from orthogonal solutions satisfy both equations 2 and 5, but if these two equations are applied to factor loadings obtained from oblique solutions, they will be satisfied only when additional terms that take into consideration the correlations among the factors are added to the equations.

In this example, the varimax rotation method is used. Varimax rotation belongs to the class of orthogonal rotations, thus it will result in uncorrelated factors. The outputs reproduced below are the results after the varimax method has been applied to the initial Factor Matrix. It contains a rotated factor matrix, a factor transformation matrix, and a factor loadings plot. Since the factor transformation matrix is not particularly relevant to the present discussion, discussions are focused mainly on the rotated Factor Matrix and the factor loadings plot.

Table 5 Rotated component matrix

Component			
1	2		
.714	.464		
.265	.899		
.886	.140		
.540	.300		
.886	.140		
.177	.871		
	1 .714 .265 .886 .540		

Notes: Extraction method: Principal component analysis. Rotation method: Varimax with Kaiser normalization. Rotation converged in 3 iterations.

Varimax Rotation 1 for Extraction 1 in Analysis 2—Kaiser Normalization

The Rotated Factor Matrix appears to be a little easier to interpret than the previous Factor Matrix. With the exception of item 1, all items have high factor loadings on only one factor. If .5 is employed as the critical value of factor loadings (i.e., factor loadings smaller than .5 are considered unimportant), we can draw the following conclusions from the Rotated Factor Matrix:

A two-factor solution is adequate to represent the data Items 1, 3, 4, and 5 load primarily on factor 1, while items 2 and 6 load primarily on factor 2

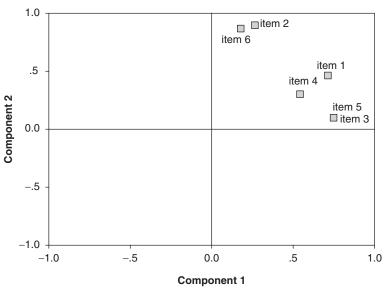
The above conclusions seem to match the results of the "educated guess" factor analysis described at the beginning of this entry. However, these results do not seem to support the original assumption; that is, this 6-item scale measures a single construct: adolescents' attitude toward the use physical, aggressive behaviors in their daily life.

Another convenient means of examining the success of an orthogonal rotation is to plot the variables using the factor loadings as coordinates on a factor loadings plot. The plotted numbers represent the numbers of the variables (or items in this case), for example, 2 represents item 2. The coordinates of Figure 2 Component plot in rotated space

each plotted number correspond to the factor loadings in the Rotated Factor Matrix, with factor 1 represented by the x-axis and factor 2 by the y-axis. The coordinates are also listed under the plot.

If a rotation has achieved a simple structure, clusters of variables should occur near the ends of the axes and at their intersection. Variables at the ends of the axis are those that have high loadings on only that factor. Variables near the origin of the plot have small loadings on both factors. Variables that are not near the axes are explained by both factors. If a simple structure has been achieved, there should be few, if any, variables with large loadings on more than one factor.

There are 5 plotted numbers in the reproduced factor loadings plot instead of 6. This is because item 3 and item 5 have the same coordinates (i.e., same loadings on factor 1 and same loadings on factor 2), and the computer prints only one of them, that is, 5, on the plot. Basically, most of the plotted numbers are located near the ends of the axes. Item 1 appears to be a little away from the axes because it also has comparatively high loading on factor 2. Nevertheless, the plot indicates that the rotation has achieved a relatively simple structure, with the majority of the plotted numbers located near the ends of the axes.



What Conclusions Can Be Drawn From the Factor Analysis on This Set of Data on the 6-Item Scale?

Instead of a predicted 1-factor solution, a 2factor solution is reached by this factor analysis. The original assumption that the 6-item scale is measuring one construct is not supported by the analysis. A closer look at the 6 items may suggest why a 2-factor solution is reached. One of the possible explanations is that items 2 and 6 appear to be related to how the respondents would actually behave in conflict situations, while items 3, 4, and 5 (and to a great extent item 1 also) refer to the use of physical, aggressive behaviors in general situations when respondents' immediate and actual responses and behaviors are not directly involved or asked. If we examine item 1, which also has moderately high loading on the factor on which items 2 and 6 primarily load (i.e., factor 2), we can find some support for the above explanation. While item 1 may be primarily designed to refer to some general situation when physical, aggressive behaviors were used, the portion of item 1 that reads "people won't listen to you unless you get physically aggressive" may unexpectedly invite the respondents to think about how they would actually behave when they are probed with this item. Based on the above factor analysis results and explanations, we can suggest that the 6-item scale may be measuring two constructs or two dimensions of the same construct. Factor 1 may be measuring adolescents' general attitude toward use of physical, aggressive behaviors in daily life, and factor 2 may in fact be measuring adolescents' predisposition to act aggressively when provoked. Nevertheless, the above explanation may be only one of the many possible explanations for why a 2-factor solution appears to be more appropriate.

Reliability analysis on the same set of data suggests that the scale has a very high inter-item reliability coefficient (Cronbach's $\alpha = .8396$). However, results of the present analysis do not offer support to the claim that this scale/questionnaire is a homogeneous instrument. While reliability analysis suggests that item 4 should be the first to go if some items are to be deleted from the scale, this factor analysis also points to the need to look more closely into item 1. In any event, the scale developer has to revise the scale if he or she hopes that only one construct will be measured by

the scale. Other methods for construct validation should also be employed to improve the construct validity of this scale.

Critical Summary

The correlation matrix of a questionnaire or test is approximated by the factors (usually fewer than the number of variables) when a researcher conducts a factor analysis. The researcher hopes this approximation is a good one; that is, the original correlation matrix is close to the one produced by fewer factors. In other words, there is a small difference between the two matrices or, in statistical terms, there is a small residual when the original correlation matrix is compared to the factor analysis produced correlation matrix. There are two general types of factor analysis, confirmatory factor analysis (CFA) that is used when the researcher knows the number of factors and can specify or constrain the loadings of variables, and exploratory factor analysis (EFA), where all loadings are free to vary. This entry discussed only exploratory factor analysis.

Two reminders about effective use of factor analysis:

- 1. Rule of thumb for the minimum sample size in factor analysis: 100 subjects or 10 times the number of variables (whichever is larger) (thus, the sample size of this example is too small!)
- 2. Factors are hypothetical constructs and do not have meanings by themselves; meaningful interpretation of the resulting factors must have to be based on sound theoretical frameworks and unbiased and careful analyses

Robert Gebotys

See also Multicollinearity; Quantitative Analysis in Case Study; Questionnaires; Reliability; Statistical Analysis; Validity

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FALSIFICATION

It can never be proved, logically, that a theory presents an accurate or "true" view of what it explains, whereas it is always possible—again, logically—to prove a theory is false by identifying data contrary to that which the theory explains, or by showing that it predicts something contrary to what is observed. The influential philosopher of science Karl Popper argued that science should actively attempt to find counterexamples—evidence that would refute its theories. Refutation of a theory indicates it is false, and so the program advocated by Popper is known as falsificationism. Falsification is important in the social sciences, and particularly in case study, because of the importance accorded to an individual case. Frequently a case is undertaken that will show that a widely held theory is incorrect, and such a case will result in some limitation or constraint on the use and application of the theory in question.

Conceptual Overview and Discussion

A (scientific) theory is usually developed inductively. Observation is made, data collected, and a generalized theory that explains the data is created. Since the explanation covers only observations already made or data already gathered, it is impossible to substantiate the claim that the theory is universally true. A theory may be shown to be wrong in one of two ways. First, it is possible that some relevant observation or data will be found that is not explained by the theory or that contradicts it. Second, theories ultimately depend on assumptions. Predictions are logical entailments of the basic assumptions. If the predictions are found to be false, then the assumptions must also be false. It is possible that any theory may be false, and so all theories are falsifiable.

One peculiar aspect of falsification is that if a theory withstands attempts to falsify it, it is deemed to be somehow strengthened. Claims concerning its universality are considered less likely to be wrong than they were, and untested predictions made by the theory are accepted more readily. We have more confidence that the theory is "true." It is not easy to explain why this is so. If we lack evidence to disprove a theory at a particular time, and we still lack evidence to disprove the theory at some later time, the situation has not changed: We lack evidence to disprove the theory. One approach to this situation is to claim that as additional data are gathered, knowledge is increased, and thus every unsuccessful challenge increases confidence in the theory. But again, it is hard to say precisely why a supposedly universal theory is stronger because it explains more data.

Popper argued that one goal of science should be to actively attempt to find evidence that would falsify a theory or its predictions. In his view, science should make, and attempt to refute, "risky" predictions by constructing "critical experiments" that would, if successful, conclusively demonstrate the falsity of the theory. If the theory robustly resists such attempts to falsify it, our confidence in the theory is justifiably increased.

Popper may be correct: This is what science ought to do if it intends to establish the truth of its theories, but this does not seem to be what science actually does. The equally influential philosopher of science Thomas Kuhn argued that when evidence that might falsify a theory is found, the usual practice of science is either to discount the disconfirmatory evidence, or to amend the theory in an ad hoc way to accommodate the falsificatory data. He claimed that by using theories to solve problems, the actual practice of science is confirmatory.

At their inception, theories often assume the existence of unobserved objects, such as atoms or genes. These entities may later be observed, or they may remain "theoretical" objects. That such entities demonstrably exist, or that they cannot exist, is taken as very good cause to accept or reject the theory. However, since the existence of such objects is usually fundamental to the theory in question, science again tends to seek confirmatory rather than falsificatory evidence.

For example, CERN's Large Hadron Collider (LHC) has cost up to 10 billion dollars to construct. It is to be used to provide evidence of the

existence of a particle known as the Higgs boson. The observation of such evidence, despite the circularity of basing the LHC experiment on the assumed correctness of the theory it is intended to support, will be taken to show the theory is correct; the non-observation will tell us absolutely nothing: Perhaps the Higgs boson was on vacation. It is clear that the LHC was not constructed in order to falsify theory, and therefore it can be argued that it is not, despite its cost, a critical experiment.

Popper was primarily concerned with the foundations, nature, and growth of scientific knowledge. But the core of falsification—that we can have increased confidence in a theory that successfully withstands attempts to falsify it—is an important part of the social sciences, and particularly in case study.

In case study, challenges to a theory may be presented as arguments. A case is not an experiment in which there is only one variable; there are often many factors that may influence an outcome. These influences may not be directly causal, and the researcher may argue that particular factors are (not) influential. Since the theory, or its relevance in a given situation, is supported by some argument, there is a judgment involved in its acceptance, and in this situation an unsuccessful attempt to falsify a theory will indeed strengthen that theory because an inductive argument that withstands challenges is more acceptable than one that doesn't.

Application

Ted K. Bradshaw's study of the closure of an Air Force base in California, which also provides an example of a contrastive explanation, shows how a theory can be falsified. At the time of the study, it was widely accepted that the closure of such a base would have a catastrophic effect on the local community in terms of economic downturn and concomitant social upheaval. This received wisdom is the basis for political arguments intended to get money from the federal government (billions of dollars!) to support communities supposedly adversely affected by base closures. In the study, Bradshaw claims there is little empirical evidence to support the received wisdom. However, received wisdom has the status of a theory. As a theory it makes predictions that a military base's closing will have a catastrophic effect on the community in which the base is located. In this case, specific predictions were of a 7% increase in unemployment, the loss of 3,694 jobs, a population loss of 18,000 people, and a loss of \$105 million in retail sales.

What the research found was that none of these predictions was satisfied. Unemployment attributable to the base closure raised the rate by 2%; there was no change in the annual employment patterns after the base closed compared with years before the base closed; the population count grew slightly; and retail sales grew (although a little more slowly than they might have grown had the base not closed).

Received wisdom was the basis for fairly specific predictions (in four areas) that were confounded by the data. Logically, one item of data is enough to refute a theory, but because the argument for received wisdom and the argument against it are both largely inductive, the combination of opposing evidentiary data provides strong reason to support the view that in this case received wisdom was false. In the spirit of Popper, we should have no more to do with it. However, there is perhaps well-founded reluctance to dismiss the theory holus-bolus. First, it provides the basis for an (often successful) argument to obtain federal government support for communities that experience military base closures. Second, not all military base closures will necessarily have the same effects. A case is unique, and we are limited in what generalizations may legitimately be inferred from it. However, this case should at least inform any predictions of the effects that similar closures might have on other communities. Third, received wisdom is brought to bear on broadly similar situations: What will happen when a major manufacturing plant closes in a community? What will happen when a popular tourist destination loses its attractiveness for some reason?

Critical Summary

Falsification provides an incontrovertible means of establishing that a theory is incorrect, but it is not often used in science. It is more valuable in social science, particularly in case studies, because a particular instance that shows a theory to be false or inadequate can inform as to how we may or may not use the theory in other situations.

Alan Belk

See also Explanation Building

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FAMILIES

Families can be defined in universal, functional, structural, and inclusive ways. The predominant definition used by current family researchers is an *inclusive* one, which recognizes the many forms that families take and the varying roles carried out within families. From this standpoint, societal definitions are less important than individuals' perceived meaning, and families are viewed as private, voluntary groups rather than social institutions.

Conceptual Overview and Discussion

Families are ideal research contexts in which to conduct case studies. This entry draws from family systems theory to identify characteristics that make families appropriate "cases" for case study research. Although case studies can be informed by many epistemological paradigms, this entry focuses on qualitative case studies informed by interpretive, heuristic, or critical paradigms.

Families as Systems or Cases

A number of researchers have noted that case study research involves a decision of *what* to study rather than *how* to study something. Case study research typically focuses on a single case, and as a "bounded system," there are elements of a case located inside it and other elements clearly located outside the system's boundaries. *Family systems theory* recognizes a family as a single case occurring within a larger environment, and a number of this theory's assumptions are relevant to case study research.

Case researchers draw on many features of a case to understand it, with one central focus on how a

case functions. From a family systems perspective, the assumption that "the whole is greater than the sum of the parts" is highly relevant to case study research. Family systems consist of more than just the simple addition of each family member; they include characteristics such as various behaviors and implicit or explicit ideologies that emerge out of the interaction between group members. Thus, family functioning can be understood only by viewing the whole system rather than parts of it. Case studies provide the means to understand the multifaceted inner workings of families by including all system elements, including various subsystems such as parents or sibling dyads, in an analysis.

A second assumption of family systems theory is that family systems, like any system, desire and need stability; too much change or chaos can result in system difficulties or breakdown. Ideologies (e.g., a family's gendered views of who should do paid or unpaid work) and behaviors (e.g., dinners with grandparents) become patterned over time, resulting in system stability. Stability is achieved through negative feedback loops, which discourage change. However, for families to remain viable, they must also be able to change when needed. For example, when a child is born, new routines must be developed in response to such a major change in the family system. Positive feedback loops encourage more of a new behavior (e.g., the adjustment of a curfew following a teenager's demands for greater independence) or new ideology (e.g., a family changing its outlook on life after a member is diagnosed with a life-threatening disease). Case researchers, through their exclusive focus on one family at a time, have the opportunity to observe and document various interactional loops that may be helping or hindering families.

Another family systems assumption is that families are affected by the broader environment or *suprasystem* (e.g., family–work policies influencing whether or not a caregiver leaves paid work to care for an ailing family member). In turn, families have their own capacity to impact the environment (e.g., employed parents collectively demanding workplace day care). Case researchers recognize the impact of context on families by pulling into their analysis factors such as the economic and political realm in which a family exists. Detailed attention to the larger sociohistorical context can reveal important educational and policy considerations.

Finally, family systems theory recognizes that the relationship between families and the suprasystem

is affected by the permeability of family systems' boundaries. Boundaries separate families from other systems such as the neighborhood or community. Most families have semipermeable boundaries; that is, they allow selective information both in and out of their systems. However, boundary permeability fluctuates over time. As well, the degree of permeability may change in terms of its functionality for families. For example, it may be functional for a family to become more private in an immediate response to a crisis. However, if the family's boundaries do not open up over time to allow it to access or receive help from others, such closed boundaries may ultimately impede overall family functioning. Again, case study research, with its in-depth focus on one case, allows for a close analysis of how a family system's boundaries influence family interaction and well-being.

Boundaries and Ethics

Case studies of families may include an ethnographic component involving substantial time spent in a family's home. Researchers also pass through a family's emotional boundaries. Given the potential implications of such deep involvement in a family's physical and emotional space, efforts to minimize risk to the family should be paramount. Ethical issues around how to protect individuals' confidentiality need to be considered. For example, there may be times when detail is sacrificed to hide family members' identities from others—not only those external to the family but also other family members. Researchers may also need to consider how they will deal with their own emotions resulting from their intimate participation in a family's private life and how they will respectfully withdraw from the family's emotional and physical system when the research is complete. In Linda Matocha's study of families in which one person had AIDS, families came to depend on her and even view her as a family member, and she also attended funerals of individuals who died of the disease. She maintained relationships with families after the research was complete; other family case study researchers might make different choices.

Application

Many types of families and family experiences can be studied using a case study design. For example, a case study may look at a caregiver's experiences of providing care to an elderly family member, focusing on factors such as daily caring activities that need to be carried out and the impact of regional policies and local services—or lack thereof—on the family's well-being.

The coming-out process of gay and lesbian individuals is typically focused on at the individual level. However, families of individuals who are gay also negotiate a coming-out process, continually making choices about to whom they will reveal they have a gay family member. Joyce Baptist and Katherine Allen conducted semistructured interviews with six members of a family regarding how they negotiated their coming-out process. The authors noted how their case study design "honors one family's unique stories around the coming out of a gay member, including the motivations, reactions, perceptions, beliefs, and hopes of each gay member and of (the) family as an entity" (p. 95). They described complex processes of embracing a gay identity, integrating as a family, building social networks, and having a social awakening.

In 1951, three young brothers went missing after leaving their family's home for a neighborhood park. Years later, the parents had still not given up hope; researchers Deborah Lewis Fravel and Pauline Boss saw an ad placed by the parents in 1989. On the basis of this, they conducted an in-depth unstructured interview with the parents, with the goal of gaining deeper clarity into what the researchers understood about the concept of ambiguous loss—uncertainty about the loss of someone resulting in a more complex experience of grieving and resolution than what typically occurs. A 38-year retrospective account revealed various themes such as hope and working as a team. The in-depth nature of this case study highlighted resiliency and positive coping skills in the face of such an ambiguous and difficult loss, something the researchers had not necessarily anticipated.

Critical Summary

Families, in their varying forms, are excellent cases for analysis. Family systems theory focuses attention on complex family dynamics, real-life processes, and the interaction of families with other systems. Although an "N" of one, a case study provides important and detailed insight into families and family dynamic.

Áine M. Humble

See also Anonymity and Confidentiality; Case Study With the Elderly; Ethnography; Interviews

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FICTION ANALYSIS

If we accept the simple wisdom of the common adage that truth is often stranger than fiction, then what might that in turn suggest about the relationship of fiction to truth? Indeed, within research traditions and perspectives that question monolithic truth claims, any distinctions between "truth" and "fiction" are inherently granular and not categorical. Thus, in its most simplistic incarnation, fiction analysis case studies use works that are considered by popular culture as well as academic convention as fictional as data for the craft of academic research.

Conceptual Overview and Discussion

In fiction analysis cases, the fictional text is treated as a cultural artifact. The cultural artifact is understood as an effect of a given society that acts to mirror and emphasize variously chosen sets of enacted relations and phenomena of that society as situated in a distinct time and place.

Thus, the fictional text is an artifact that embodies a particular set of norms and patterns that are relevant to a given phenomenon or society. The treatment of fiction as "data" offers an opportunity to examine text(s) that both contain and are products of their social context. Fiction analysis is a way of taking cultural artifacts, steeped in the richness of the social context(s) that allowed for their creation, and then accepting the veracity of using such artifacts as data for analysis.

Fiction analysis is closely connected with ideas concerning history. We might usefully ask, as does Ann Rigney, why we see novels as unreliable due to the fact that creative writers are less constrained by their imaginative capacity than professional historians. Does the use of archival research by such historians render an account more revealing to us, or is it simply more authoritative? Postmodern historian Hayden White has questioned the assumed authority of a "historical account" by suggesting the many similarities in the craft of "fiction" and in "history." Though White does not deny that historians draw on historical traces to "do" history, he highlights the many parallels of historians and writers of fiction, including their interest-driven hand in selecting the events they are to describe, ordering those events, and attaching meaning to those events. Perhaps the example of fictional historians such as John Demos, who makes use of historical fiction to provide for an "inner feel" of a period, offers us some reassurance of the value of fiction as a source of data for case studies.

The resonance that we may feel in experiencing the reading of a text is important, indeed valuable. Being that fiction is an aesthetic object, our reading experience transcends simple fact gathering. Thus the complexity of interacting experientially with characters and context in fiction offers a nuanced way of revealing both how subjects experience their situation and likewise how we as researchers experience their lives. In this respect, the addition of the researcher into both the data and the analysis of a case is particularly nuanced.

Whether or not the particular fiction is specifically described as historical fiction or not is of no particular matter. Fiction is written by authors who are shaped by (through) their social context and we as readers and researchers are as well. Our aesthetic experience of reading such fiction therefore brings into light not only the various social contextual factors at work in both the creation and consumption of the fiction but also in our reaction to experiencing the similarity or differences in such social contexts.

Application

The work of Barbara Czarniawska offers useful examples of different ways in which fiction analysis may be employed. Through such varied works of fiction as detective stories, fiction (and film) involving cyborgs, and a fictional account of a Swedish stock market crash, Czarniawska examines taken-for-granted assumptions in the social world. Through understanding that the creation of fiction does not occur in a social vacuum, she is able to show how the examples in fiction act to teach particular ways of being. The examples of how women in finance are portrayed as being subject to a classical Greek tragedy plot or how women in detective stories are exaggeratedly constructed as being dangerous offers insights we would not otherwise find in more conventional accounts of women in banking or police work.

Czarniawska is also able to use genres such as science fiction to examine theoretic suggestions. Her work examining the potential (or lack of potential) for liberation through cyborgs spans film and print media and different incarnations of, for example, *The Stepford Wives* and *Blade Runner*. In doing so, she offers an examination of different historically situated variants of the same story in contrast, with implications arising from how these accounts have or have not shifted over time.

Critical Summary

The selection of data for analysis in case study research involves questions of usefulness, trustworthiness, opportunity for novel insights, and some sort of veracity. When we categorize documents or accounts as being either fiction or nonfiction, we invoke a latent evaluation of the data in terms of such questions. Instead of asking, "Which is true?" perhaps we might be more usefully asking, "Whose truth?" when considering fiction for analysis. If truth is indeed stranger than fiction, then the corollary seems to point toward fiction being comparatively mundane. For those who study more commonplace social situations or widely held social convictions, the potential for such data to illuminate the common, normal, or taken for granted is powerful. The treatment of fiction as data offers an opportunity to examine text(s) that are both effects of their social context and contain that social context.

Anthony R. Yue and Gabrielle Durepos

See also Postmodernism; Poststructuralism

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FIELD NOTES

Field notes are the data collection technique for making field work into a case study that has utility in teaching and training. Without proper field notes, the translation of field work into a case study cannot be successful.

Conceptual Overview and Discussion

Taking down field notes is the act of recording one's research data as well as the beginning of communicating one's research findings with others. The creation of a permanent record of events, interviews, interpretations, and ideas allows researchers to be clear about what they think they know. Often, in the course of discussing field work as a methodological tool, people wonder how spending time in a particular place with particular people

enabled the researcher to come to the conclusion that he or she understands something about them that they may not themselves admit to understanding. Few of us can claim to really understand our own neighbors. However, as trained professionals engaging in field work, case study researchers keep field notes and rely heavily on them as a primary source of data. Through taking down a description of an event, they create the record of an event. As Clifford Geertz describes it, case study researchers inscribe social discourse, turning it from a passing event, existing only in its own moment of occurrence, into an account, which exists in its inscriptions and can be reviewed at a later time.

There is an air of mystery surrounding field notes and what they should contain. Should field notes be a glorified diary, including the researcher's personal feelings, struggles and desires? For some, making note of any personal issue is important in that it might come to shed light on a particular phase of research. For others, keeping a research-based field notebook along with a separate, more personal journal is preferred.

The posthumous publishing of Bronislaw Malinowski's diary in 1967 brought this discussion to the fore of many social science debates. A founding father of anthropology, Malinowski was seen in full exposure, his personal thoughts and desires laid bare in a way he certainly had never intended. His notes and data were full of great depth and breadth and led to the publication of highly respected monographs in the discipline. These portrayed him as a man struggling through both culture shock and assimilation who frankly documented his feelings, which many in a similar circumstance and point in time may have shared. Some see this as a clear showing of the complexity of the human experiences and human beings involved.

Application

Field notes can take many forms. There are the random jottings that take place when one walks from village house to village house or the notes made at a café where one sits between interviews. Some of these notes are descriptive, focusing on the physical space, the mannerisms of the people present, the sounds, smells, and duration of events. Others are merely words taken down to jog one's memory later when one expands on earlier notes. They should be

written, expanded upon, reviewed, added to, and reviewed again. For those more accustomed with a natural science model for research, this may sound strange. If field notes are a researcher's data, then how could a researcher add to them, expand on them, "change" them? Well, the techniques of observing and participating require that researchers note their findings through those field work activities and that they do so in a way that will enable them to write their theses later and provide the data to support their findings. Rudi Colloredo-Mansfeld, in his account of economic and artistic life in Ecuador, engagingly describes his note taking and data collection in Otavalo. Colloredo-Mansfeld not only relies on his written documentation of life in the artisan community, but also sketches scenes of the culture around him, thereby opening himself up as an artist and researcher in the community. Because his field notes included detailed descriptions of household goods, the sketches acted as both a field note and also as a pictorial representation of his jottings. When Alma Gottlieb and Philip Graham were in a West African village, as anthropologist and writer/partner they had multiple encounters with their need to record their experiences. Gottlieb describes her desperation to begin her orderly and systematic collection of field notes by following the census model of her advisor only to find that simple questions, and hoping for simple answers to develop into real field notes, is often easier said than done. Field workers find through their interactions with ethnographic and fiction writing that taking down reality amounts to more than simple notes.

Researchers engaged in field work must familiarize themselves with the different ideas and forms of note taking before beginning their research. Similar to the case study providing a template for thought, learning, and action, studying various methods of taking field notes can provide a menu of options for the researcher standing in a field site with an empty notebook. Yet like most elements of field work, the successful method for each individual will come only through individual experience. Through trial and error, a system is born. However, by always striving to maintain both breadth and depth in one's notes, the resulting data will create a more well-informed case study.

The breadth of field notes often comes from the breadth of the project itself. If one gathers data for 12 months in the field, it is likely that the resulting

field notes will include information on many facets of the particular culture, not just those that fall directly into the research program. However, if one is to be in the field for only a month or two, then the field notes will likely be more narrowly focused on the specific research questions at hand. In the latter instance, one might have to sacrifice breadth for depth. Focusing as much as possible on the area of research will result in notes reflecting greater detail in a smaller area of focus. Breadth can also come from the work a researcher does to expand on earlier notes or ideas. This may include reflections on other academics' research, questions that might connect the present research with the research of others in another discipline, or conversations with locals about areas that might seem to fall outside of the area of focus. In this way, field notes should not be only journalistic jottings of one's observations, but should also include those immediate thoughts, questions, or realizations one comes to while engaged in the research process. Summaries of the research and thoughts about it can be very useful when taken as an overall log over time. This is why taking time to reflect on one's notes is so critical. Through reflection and review of one's field notes, connections can be made and the data may begin to form a picture of the case study that will result. Even though the data are present within a researcher's field notes, it is nevertheless the researcher's job to organize, translate, and present them.

These days there are many options for individual researchers who want to record their field notes directly into a computer. While many field work settings make such a process challenging, some researchers find it easier to create word processing documents immediately while doing field work. Researchers often construct databases to manage their field notes. They select appropriate categories for classifying the data. For example, a cultural anthropologist might set up specific categories for kinship terms, religious taboos, plants, social networks, and so on. These data can then easily be retrieved for analysis. Some researchers rely on tape recorders or digital recorders for their interviews or field notes. However, most field workers would find it safer to transfer the information off of such recording devices as soon as possible after collecting the interview. Regardless of the kind of technology a researcher uses to collect and store field notes, the utmost care must be taken to keep the data safe.

D. W. Plath describes the underanalyzed aspect of what he calls "filed notes" and the amount of work that comes after one collects data in the form of field notes. He persuasively argues that social scientists have not given enough critical attention to the act of working with and making use of field notes. Often the necessary data are extracted and the rest is left forgotten. Plath also argues that if more time was spent with field notes, the resulting analyses and case studies would be greatly improved. Gathering all of one's field notes together and studying them, perhaps along with any personal journals, can be invaluable for seeing the evolution of one's ideas. This active reflexivity enables researchers to examine their cultural and epistemological positions. While great attention should be given to the act of taking and the quality of field notes, there must also be serious attention given to the processing of all of the field notes after data collection is complete.

Critical Summary

Field notes comprise the data gathered in field work. Therefore, critical attention should be paid to the personal methods one employs in creating a field log and how one will strive to ensure appropriate depth and breadth in one's field notes. Because the field work situation is fluid and unpredictable, researchers must make every effort to make good use of their time and maintain the highest quality field notes possible. Once back at the desk, the field notes come to act as a guide. Through critical reflection and attention to one's field notes, the best possible case study will result.

Liesl L. Gambold

See also Experience; Field Work

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FIELD WORK

Field work involves a complex process of observing and participating in another culture. Unlike the relatively simple act of observing, the union of engaging in local daily life while being observant is at the core of the field work experience. Field workers both observe the activities taking place in the community and participate in them as much as possible and as appropriate. The crafting and use of case studies relies heavily on the experience, description, interpretation, and presentation of field-based research programs.

Conceptual Overview and Historical Background

Field work, as a data collection method, is particularly useful for researchers who wish to involve themselves in collecting and analyzing information about people, such as their activities, beliefs, and attitudes. Since most social scientists are concerned with the study of living people or cultures, researchers need to collect firsthand information, often by living in the societies that they study over lengthy periods of time. The method of field work was developed in anthropology as a result of some of the earliest anthropologists transferring their ecological or natural science training into the science of studying people in their natural environments. An example is Sir Walter Baldwin Spencer, a biologist who traveled in Australia in the late 19th century to study the natural flora and fauna. Through making the acquaintance of Francis James Gillen, an Australian anthropologist/postmaster who lived in the outback, Spencer began to make notes about and study the Australian aboriginal population as he had the plant species of the area. This kind of attention to people in their traditional setting, known as "field work," became the hallmark method of anthropology. Most graduate students in the discipline complete a period of field work as part of their rite of passage in becoming professionals in the discipline. Field work, therefore, is a highly valued, and sometimes misunderstood, research method.

The monographs resulting from field work are often referred to as *case studies*. These portraits of cultures are used in teaching from the undergraduate

to the graduate level with great success. Since most usually cover a similar host of topics, such as subsistence practices, gender relations, political structures, economy, ideology, and so forth, readers are able to compare and contrast case studies with one another. Other academics have also found such monographs useful for these often draw together streams of inquiry—economic, psychological, historic, and social—in a uniquely cross-cultural format. This breadth lends itself nicely to engaging other researchers' own questions. For the general public, there is always a place for learning about how other cultures live. Margaret Mead found great public success in publishing her account, Coming of Age in Samoa in 1928, which described adolescence in Samoan culture and raised many questions about Western assumptions of this stage of the life course. While the particular focus of each researcher in his or her field site is likely different, the general macrolevel discussions are made possible through field work-based case studies.

Application

Field workers usually live in the community they are studying, sometimes renting a house or a room in someone else's dwelling. It is argued that through this intensive participation the researcher becomes deeply familiar with the group and can understand and explain the society and culture of the group as an insider. Of course, many researchers find being alone in a foreign place where the native linguistic skills and the practices and rhythms of local life are unfamiliar a very stressful experience. The culture shock that can arise in the field work experience is a pertinent issue and as a result very well documented. If a researcher withdraws for too long and finds the field situation too challenging, then he or she may not be able to collect the data necessary to successfully complete the research project. Therefore, merely arriving at a field site in order to participate and observe a bit does not guarantee success. For researchers to continue working on their projects in the midst of culture shock, they must have adequate training so that they can anticipate what may arise in their particular field site and deal with it the best they can. This training may arguably be subtle in comparison to training for other research methods, but it is, nevertheless, critical. Case studies that can train students for field work are critically important tools that can enable individuals to work through various field work scenarios before actually embarking on their own field work.

Students of qualitative research methods often remark that detailed stories about field work are most interesting and helpful as they embark on their own research. They state that when they are in the field they remember stories—particular case studies, if you will—and they often recall how a researcher managed in a particular situation, and this helps guide them. Of course each field work experience is generally quite individual and unique, therefore there is no prescription for success that an advisor or consultant can provide a researcher. The case studies that one chooses for discussing field work can cover theoretical, geographic, cultural, or disciplinary areas of overlap. Lynne Hume and Jane Mulcock have edited an excellent volume that gathers together numerous accounts of anthropologists in the field and their experiences with things like depression, hostility, danger, and moral dilemmas while engaged in field work. Field work, then, is an ongoing, multifaceted research experience.

Field work is usually undertaken because the nature of the problem or theoretical topic chosen by the researcher can be best addressed through such a research program. For example, during Spencer's era in the early 20th century, researchers studied cultures with the goal of describing them in as much detail as possible. In recent decades, anthropologists have been focusing more on problem-oriented research. Some are committed to scientific and causal research to explain aspects of culture that sometimes seem "unexplainable," such as why some cultures prohibit eating certain foods for religious reasons. Other anthropologists favor more intuitive research that avoids hypothesis testing and favors evocative interpretationist descriptions in search of symbols, motivation, and meaning; for example, how particular cultural groups interpret their personal experiences and create meaning in their lives. For example, Philippe Bourgois, who studied drug dealers in East Harlem in New York City, found that his experiences on the street, living and doing field work in *El Barrio*, moved him to consider how the situation he was studying was a form of what he calls "inner-city apartheid" in the United States. Eric Ramirez-Ferrero moved beyond traditional forms of economic analyses of the farm crisis and uses emotions and gender to interpret the causes of suicide among male farmers in Oklahoma.

Discussion

Despite some early criticisms that both field work and anthropology focused on the discipline were not scientific enough, anthropological researchers engaging in field work are actually employing the scientific method, a logical system used to evaluate data derived from systematic observation. Sarah Franklin encourages us to reconsider what science is all about when she writes that anthropology can foster an understanding of science as a form of culture. Researchers rely on the scientific method to investigate both the natural and the social worlds because the approach allows them to make claims about knowledge and to verify those claims with systematic, logical reasoning. Through critical thinking and skeptical thought, scientists strive to suspend judgment about any claim for knowledge until it has been verified. Field work can be used successfully in either inductive methods of research or in deductive methods. In inductive methods, researchers first make observations and collect data. Researchers use the observations about different variables to develop hypotheses about the data. In contrast, the deductive method of scientific research begins with a general theory from which one develops testable hypotheses. As with the inductive method, the testing and retesting of hypotheses and theories is used to ensure the reliability of observations made. Researchers may also use a more interpretive lens in their methods. Much field work relies on the assumption that we need a form of interpretation that does not turn our informants into objects. Paul Rabinow addresses this problem in a book based on reconsideration of his own field work experiences. Rabinow suggests that, for the field worker, coming to understand the cultural other involved coming to understand the cultural self.

Through these methods of field work, researchers do not arrive at absolute truths. Theories may be invalidated or falsified by contradictory observations. If research results from field work in rural Russia showed that farmers were hesitant to engage in individual farming and it was argued that in the postsocialist situation in Russia private farming

would fail, but another researcher's field work found a blossoming entrepreneurial spirit among individual farmers elsewhere in Russia, then one would have to begin the task of assessing the variables in the different field sites. Using case studies resulting from field work in two different areas would be helpful. For example, in Siberia many villagers expressed greater hope and potential for the economic effects of postsocialism than the villagers in Central Russia. Though the residents are all living in a post Soviet context, John Ziker found that the discourse of the Siberians was centered more on ideas of indigenous peoples returning to "traditional" forms of economy such as owning their own reindeer herds, whereas in Central Russia, Patrick Heady and Liesl Gambold Miller found that villagers who relied on agriculture viewed agricultural reorganization as a collapse of the social safety net the state had for so long provided them. While one generally finds that there is some continuity from one case study to another within a common cultural region, there can be remarkable variations, and successful field work is a method that can uncover some of the reasons behind such differences.

Margaret Mead, perhaps the best-known anthropologist and an extraordinarily active field worker, often referred to the field worker as engaged in building a systematic understanding of the culture resulting in a living, changing, analytic system in which new data gathered in the field can be placed. Mead was identifying the protean nature of field work much as Bronislaw Malinowski, one of the greatest social anthropologists of the early 20th century, had regularly noted the need to review his field notes in order to keep his gaze sharp during his field work. While field work makes possible the deeper understanding of a particular place or people or problem, the researcher must always keep in mind that, like culture itself, the field is always changing.

Liesl L. Gambold

See also Comparative Case Study; Ethnography; Experience; Field Notes

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FORMATIVE CONTEXT

Columbia University Press.

Formative context refers to a set of assumptions, arrangements, and shared ideas that exist to produce and preserve a particular version of social life so as to make routine behavior and existing structures seem permanent. Formative contexts are not static; they differ in their susceptibility to change as a result of social conflict.

Conceptual Overview and Discussion

Case study research is said to be most amenable to an examination of unique or transformational events. These events help develop an understanding of complex social phenomena by thoroughly investigating the rich detail of the case. However, at least one question remains: How is social life held together when the exceptional recedes and is replaced by normal activity? The normal, according to the social theory of Roberto Unger, is just as informative and interesting as the exceptional, because the normal contains within it the seeds of

its own eventual transformation. The formative context of society and social relations is the lens through which transformation and permanence can be better understood as being conditional. For Unger, existing social theory does not recognize this conditional and contingent nature of society.

According to Unger, existing social theory can be categorized as either radical or positivist. Radical social theory posits that society is created, reshaped, and reformed by the human mind and that societal change will take place through revolutionary means. Since there is no underlying natural order that predetermines human relations or the structure of society, the individual has at least the opportunity to imagine him- or herself as being free from the social structures that currently exist. For the radical, the only way to switch to another arrangement is through revolution. However, the emancipatory social theory that has these underlying views has not seen this logic through to its conclusion. One can see radical theory, and its limitations, in practice by noting the absence of the definitive yet elusive final change as envisioned by Marxism.

At the other end of the spectrum is a positivist social science that has come to deal more and more with individual problem solving, and with narrowly defined searches for understanding that have abandoned the quest for a larger understanding of society. This social theory takes existing arrangements as given and unchanging, rather than as transitory and evolving. For example, the nearly complete global monopoly of liberal democracy in politics has been said to signal the end of history. In other words, nothing can be conceived that could replace democracy as a political system: It is a given, and unchanging, form of social life.

Unger notes that this combination of messages that give the individual the potential to shape society with messages that society is static results in a certain intellectual and societal dead end. Unger offers us a release from this deadlock by exposing the importance of formative context in determining how existing social or institutional arrangements were formed and are maintained. He argues that human motivation never fits perfectly within the institutional, economic, and social structures that exist in the world at a given point in time. As a result, there is a potential in the small adjustments of everyday routines embedded within a

context that can give rise to a chance of changing a context. This enables us to see that the regular and routine activities of society are not general laws. Key to this explanation is the idea of formative context: Formative context places unique and transformational events at the center of understanding how society both maintains and transforms itself. Unger's social theory takes this view and develops it into a theory of social relations with three elements: context provides a certain conditionality to any social arrangement; people have the flexibility to break the existing context; and contexts impose different levels of limitation on our activity. For clarity, it should be noted that context and formative context are different concepts: The former describes the circumstances around any given social situation, while the latter is concerned with how social arrangements are conceived and perpetuated.

Therefore, formative context provides the case study researcher with a theoretical framework for investigating everyday routine as well as transformational events. It accomplishes this by rethinking two opposing ways of questioning social relations. On the one hand, the question is asked: How is society held together? On the other: How does society change? Rather than viewing these as mutually exclusive, formative context regards them as two sides of the same coin. By fusing these supposedly disparate questions, formative context provides a framework for defining the nature and limits of the routine activities of everyday life. Therefore, adopting this approach allows for a detailed examination of the how and why questions so amenable to case study methodology. Furthermore, seemingly normal events or social situations are infused with the possibility of hidden uniqueness through a detailed examination of how they have come to be regarded as routine. Unger refers to these as context-preserving routines.

Formative context also recognizes that the small adjustments of everyday routines embedded within a context can give rise to a chance of changing a context. The result will be another context and an altered set of routines. This is what Unger refers to as context-transforming conflict. There are limitless numbers of these possible contexts, and so no one version of the truth holds greater or lesser validity. When applied to case study research, this aspect of formative context can help the researcher

who has adopted a longitudinal or time-series approach to case study methodology. It can also provide alternative explanations within a particular case study. Thus, the use of formative context can contribute to meeting some of the hallmarks of exemplary case study research.

However, this last aspect of formative context, namely, the limitless numbers of potential contexts, also signals a limitation. On this point, formative context has been critiqued for taking an "anything goes" approach. Therefore, when choosing to adopt formative context in case study research, it should be considered a tool best used as part of a convincing and well-justified narrative of the situation under study.

Application

Given formative context's emphasis on change and routine, it is perhaps not surprising that most of the research done utilizing the concept has been in the area of introducing new information systems into organizations. This is because the introduction of new information systems often forces an analysis of existing routines and their possible change. With this in mind, one exemplary piece of case study research in the information systems literature that utilizes formative context is found in Dick Stenmark's examination of the introduction of an intranet at Volvo Car International (VCI).

For more than 20 years, e-mail had been successfully and extensively used by VCI throughout its many work sites. However, the use of a somewhat different technology (the intranet) was not readily adopted by workers. To explore why this might be, Stenmark embarks on a case study of VCI utilizing formative context as a theoretical framework. He uses case study methodology to collect data by examining relevant documentation and interviewing workers. Of note in this example is that the case study problem and event are not particularly unique or transformational within the context of the implementation of a new information system. Employing formative context as a theoretical backdrop enables a rich analysis of the events surrounding the change in the organization, and helps the author achieve two objectives.

First, through an examination of the routine activities of workers, assumptions and arrangements are exposed that make clear why the existing

technology structure of "e-mail only communication" is preferred. Second, it shows how the introduction of a new technology broke down existing routines, created a conflict, and eventually resulted in a new formative context through the adoption of the intranet. Stenmark concludes by noting that although the existing order of e-mail use seemed natural, the application of formative context highlighted that this naturalness was socially constructed.

Another exemplary piece of case study research using formative context can be found in the work of Claudio Ciborra. Information technology changes rapidly, and successful organizations are characterized as those being able to adopt and adapt to new technology. However, Ciborra argues that, in practice, successful adaptation to change due to the adoption of new information technology is never easy. Instead, it requires changes to the background assumptions that existed to maintain the use of the previous incarnation of information technology.

To illustrate this argument, Claudio Ciborra and Leslie Schneider use a case study approach in their 1992 article. The case looks at changes to the organizational structure of a research and development department of a software firm. The firm was given a new project: to develop a complex new computer system. Hoping to increase productivity and improve the organization of the work on the project, management introduced a more structured approach to software development. The work was divided into components, each with specific goals and activities required for completion. The firm also introduced a suite of communications tools for their programmers that supported their work on the project. The introduction of a more structured approach to software development failed to achieve its stated goals of productivity improvement, while the introduction of communications tools for programmers was deemed a success. The case argues that the communications tools were a success because they were an enhancement of practices that already existed below the surface of the organization, such as informal knowledge exchanges and sharing of programming code. Using the lens of formative context, it seems apparent that the informal communication tools were part of the taken-for-granted routines and behaviors of the organization. The introduction of the

suite of communications tools reinforced these existing routines, while the new hierarchical structure challenged the routines, albeit unsuccessfully. In this case, formative context is used as an explanatory mechanism: It shows that the introduction of a hierarchical structure was unsuccessful because it did not recognize the background assumptions that existed to maintain the current formative context.

Critical Summary

Formative context is most amenable to case study research where there is potential for investigating the hidden assumptions of everyday routine, where seemingly permanent social structures could be revealed to be socially constructed, or where conflict opens the possibility of changing routines and context. Unlike other social constructionist approaches, Unger's formative context does not assume that the existing social structure is ideal, nor does it expect that any future structure will be any better. Rather, it anticipates a situation where the process of context setting itself becomes transparent and routine, and as a result powers and rights are never considered permanent.

Outside of Unger's social theory and the research in information technology as exemplified by Ciborra and by Stenmark, little else seems to exists to guide interested researchers on its use in case studies. But, with careful consideration of its limitations and utilizing the limited extant examples in the literature, formative context could be applied to case study research in any area of social science.

Adam Rostis

See also Genealogy; Interpretivism; Negotiated Order; One-Dimensional Culture

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Frame Analysis

Erving Goffman's frame analysis provides a microsociological lens on how we make sense of the encounters around us. Our experiences are governed by frames that are essential for understanding the organization of experience. Frames define what is meant by certain social events and how significant we consider them to be, and they provide guidelines on how to interpret events. Frame analysis can assist the researcher in understanding how people construe events and in understanding observations made of interactions between respondents. It can also be used for gaining understanding of the dominant framing within and between social movements and social institutions.

Conceptual Overview and Discussion

Goffman, a Canadian sociologist, is well known for such classic works as The Presentation of Self in Everyday Life (1959), Asylums (1961), Stigma (1963), Forms of Talk (1981), and "Felicity's Condition" (1983). It is argued that Goffman was one of the first to present thoughts on public spaces, the socially constructed self, the division between private self and public identity, and the role gender plays in society. With another major work, Frame Analysis (1974), Goffman presents a complex, highly detailed, and conceptualized analysis of frames that we use every day to make sense of what is happening around us. He vividly draws on huge amount of examples, varying from card games to theater to news clippings, to show what is it that we think is real, how we interpret what is happening, and under what frames.

Frame Analysis, together with Forms of Talk, marks Goffman's linguistic turn, due to which Goffman has gained wide interest outside sociology, as well. Varieties of frame analysis have been used, for example, in psychology, linguistics and discourse analysis, media and communication studies, and policy studies and political science. The attempts to neatly categorize frame analysis

have proved to be unsuccessful. Does it fall under ethnomethodology? Is it more about semiotics or symbolic interactionism? What is the role of structuralism? Or should it be called interpretivism? Whatever the case, Goffman was above all intrigued by encounter-based analysis of everyday social life. Thus, it is not reasonable to try to apply Goffman's ideas to narratives and stories, or to other secondhand versions of events. Fine-grained studies in situ are the essence in Goffman's work. Perhaps that is one reason that frame analysis is rarely utilized in, for example, organizational research. It is argued that in the field of organization studies Goffman's ideas would prove to be fruitful for those engaged in empirical research of naturally occurring human interaction.

With frame analysis, Goffman offers a perspective on social reality, asking "What is it that's going on here?" and "Under what circumstances do we think things are real?" Shortly put, frames (often also referred to as cognitive structures or mental schemas) organize meanings, provide schemas to interpret events, and guide both individual and collective action. They act as rules for our communication and cognition. The way an activity is framed directs how we relate to it. Thus, frames are essential in order to understand the organization of experience. Intriguingly, although the employed frame is implicit and participants unaware of it, that does not prevent them from acting upon it. This specifically surfaces in encounters with authority, due to strong underlying legitimating frames that are more often than not taken for granted.

The principles by which experiences are subjectively organized include primary frameworks, keys and keyings, and designs and fabrics. Primary frameworks allow their users to perceive, locate, label, and identify occurrences in users' terms. They can be broadly divided into natural and social frameworks. Natural frameworks present events as results of natural determinants. As such, they cannot be judged morally. Social frameworks carry assumptions of deliberate aim, will, and control of the event, and are thus subject to moral judgment. All social frameworks also involve rules. Both natural and social frameworks can be placed along a systematization continuum. At one end, frameworks are defined through an organized system of rules, postulates, and entities, whereas at the other end they do not employ any specifically articulated shapes, but provide only some perspective, approach, or understanding. Primary frameworks are thought to be real and actual; that is, actions framed in terms of them are thought to be really and actually occurring.

Primary frameworks are subject to two transformations, keys and keyings, and designs and fabrications. In contrast to framing, keys and keyings transform the literally appearing meanings of an activity to something else, mimicking, but not fully duplicating, the primary frameworks. For example, an utterance may be taken to represent a genuine expression of one's feelings or it may be keyed as irony. Keys and keyings can vary according to the degree of transformation that they produce, and are themselves subject to rekeyings.

Designs and fabrications are intentional efforts to manage activities such that they will be interpreted in a wrong way by other people. Alternatively, people can delude themselves through illusions. Thus, designs and fabrications are meant to cause a false sense of reality. Fabrications can be benign, meaning that they benefit or serve the interest of the person contained by them. Exploitive fabrications are hostile by nature.

The process of framing is bidirectional, playing with both structure and agency. Our experiences and events are not only framed, but we equally frame experiences and events. For Goffman, frames are a central part of culture and they are institutionalized in various ways. Framing can be seen to act as a bridge between culture and cognition. Although culture provides us with certain frames, we actively process, encode, and decode our reality in different ways. This makes the whole framing process vulnerable to the potential for struggle, and a site of multiple realities.

Goffman was first and foremost interested in the question of how social reality sustains itself. Reality for him was always mediated, changing, and uncertain. In fact, there is not often any objective reality into which the frames are anchored. By anchoring an activity, a sense of reality can be generated. This, however, does not unframe activities or make them invulnerable to misconstruction. The subjective reality and the importance of framing become specifically evident in informal social relations when making character judgments. We do not simply perform our selves, but the selves are

products of the framing of our performances and actions. Thus there is no way we can unambiguously check if our judgments of other people's characters are accurate, or, respectively, as judged persons, to argue against ill-fitting frames. In a similar vein, when talking informally, we can quite freely choose what we tell about ourselves and how we present our experiences. This makes the nature of informal talk dramatic and particularly vulnerable to frame manipulations.

The views people hold on the question, "What is it that's going on here?" are very likely to differ. In most situations, different things are taking place simultaneously, complicating what is meant by *it* or *here*. For example, when talking about "the current situation" or something happening "here," we should clearly know and agree on what it is that we are thinking about and referring to. Even single words, or sequences of words, can have multiple meanings. With attention to context, we can often rule out the incorrect interpretations and rule in the correct ones.

Application

Due to many branches of frame analysis, there is a lack of coherence of how frame analysis is to be applied. Different methodological aims abound, and alongside Goffman's idea of frame analysis there are numerous other forms of analyses that fall under the same rubric. The problem often is that it is difficult to distinguish whether it really is Goffman's frame analysis that is applied to a study, or if it is just another loose variation of that, as there is no adequate systematization of different approaches.

Frame analysis has gained ground especially in the study of political communication, ideologies, policy making, and media discourses. In the study of social movements, the cultural aspects and discourses of a movement have been of wide interest. Attention has focused on symbolic constructs and how they are used to shape reality in a particular way, that is, how reality is negotiated, constructed, and reconstructed. Furthermore, framing processes are seen to be central in understanding the dynamics of social movements.

In addition, special cases have been investigated using frame analysis. The realization of sustainable development in transport policy discourses, and the discursive framing in environmental policy debates have been under examination. Goffman himself extended frame analysis to the study of gender in *Gender Advertisements* (1976) and in "The Arrangement Between the Sexes" (1977), the legacy of which has been later continued by other writers, as well.

Critical Summary

People's different interests define what is motivationally relevant to them. Thus it is crucial to know how we reach agreement on what things are; experiences are never purely one's experiences. It is also argued that the interpretations people make are subject to their previous knowledge about other people, themselves, and social situations. History cannot be escaped, as it is often critical to the interpretation process. Goffman's frame analysis is criticized for not paying enough attention to the existence of multiple realities of different individuals and thus for assuming that interpretations can be frozen into single acts. Further, it is argued that the events Goffman is interested in (plays, commercials, drama, etc.) belong to the periphery of everyday life; that everyday behavior and interaction are indeed beyond the scope of frame analysis. It is also suggested that Goffman does not adequately consider how frames come to be developed in the first place, by whom, under what conditions, and under what constraints.

If we consider all our relations to be primary, if we believe all the news we hear is trustworthy and all the data we encounter are clean and clear, then Goffman is not the one we should lean on. Goffman argues that momentarily we may think that what appears to be really is what is going on. However, what is in fact happening is only a mistake, a misunderstanding, an accident, a dream, or a deception. There is not much in our everyday lives that is not a copy or a fabrication of what we think we should do or be in each situation. We reflect against the reality presented to us, drawing from our collective sense and representations; we are not free to frame our experiences any which way we like.

What happens when the frames we employ are incorrect or subject to vulnerabilities? Goffman is interested in why our sense of what is going on is so susceptible that a variety of rereadings is needed,

and what is it that causes incorrect framing and vulnerability to happen? At its extreme, vulnerability can lead to frame traps. When one's actions are misframed, the wrong interpretations need to be corrected. If this fails, the misframing is confirmed with any new piece of evidence or with attempts to correct the misunderstanding. Eventually, the individual becomes trapped in the web of falsifications. But, as is suggested elsewhere, the unsuccessful (or partly successful) encounters are in fact the most revealing and interesting accounts of face-to-face interaction, that is, the ones that result from misunderstandings, role confusions, embarrassments, and other frame breakings. Finally, it is good to note that there are quickly changing frames in everyday activities themselves, although they tend to be taken for granted.

Piia Lepistö-Johansson

See also Cognitive Mapping; Communicative Framing Analysis; Discursive Frame; Experience; Mental Framework; Reality; Sensemaking

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FRONT STAGE AND BACK STAGE

In the 1950s, Erving Goffman introduced the terms front stage and back stage into the lexicon of sociology and anthropology. As is commonly understood in the social sciences—and even in popular culture, today—social actors play roles, and do so in relation to others. A social actor who undertakes a role performance that is directed to others (i.e., an "audience") can be said to be on stage in front of them. Front stage, in short, can be described as where a role performance is given. When that actor leaves the audience and steps out of the role, he or she goes back stage. Goffman argued for a "dramaturgical" perspective, using these conceptual tools to shed considerable light upon the detailed dynamics of routine social interaction. This pair of concepts is particularly relevant to the case study method, insofar as that research strategy invites informal data-generation techniques undertaken in naturalistic settings.

Conceptual Overview and Discussion

An elaboration of these twin terms offers a deeper appreciation of the performative aspect of social

behavior. Role-playing involves communication, some of which is linguistic, denotative, and instrumental; here, impressions of the self (and, for that matter, others) are, in Goffman's terms, "given." Actors also "give off" impressions, largely through nonverbal significations, which appear to be less governable and thus more trustworthy. Effective role-playing, however, requires a demonstration of competency at both levels, and consistency between them. In short, on the front stage, social actors will need to manage the impressions they present to the audience (i.e., those to whom the performance is directed). Social behavior is crafted; it is work. Back stage is the arena in which the demands of a given performance are relaxed, where one can abandon the "front," or claims, put forward in that performance. In other words, the back stage can be located only with reference to a particular front stage. (Logically, of course, what is back stage to one performance can be the front of another.) Social life is comprised of ongoing series of variable and varying appearances on stage.

An acknowledgment of the impression-management process intimates that social behavior is contrived, and that an actor's real thoughts and feelings emerge only back stage. Such an inference is unwarranted, however. Roles are socially constructed (created by people), but they need not be performed cynically; that is, an actor may believe in any, all, or none of the fronts that he or she projects in the course of social interaction. Indeed, Goffman was not concerned about splitting ontological hairs. Long before the postmodern turn in social science, dramaturgy recognized that social reality is essentially intersubjective, which is to say, comprised of shared perceptions/understandings (i.e., definitions of the situation). Goffman's framework is meant to examine how credible performances, "fronts," are maintained (with the proper settings, props, clothing, physical appearance, demeanor, teamwork, etc.) or, alternatively, disrupted (e.g., by sheer error or the defections of teammates, those whose task it is to present a united front). Consistency is also imperative within any interaction event, and any front will have to be sequestered from contradictory ones, lest discrediting role conflict—or inconsistent role demands—develop.

The dramaturgical metaphor highlights the complexity of social behavior: its multidimensionality, its multivocality, its sometimes ambiguous

and ambivalent character. It is just these facts that make social research troublesome and apparently unscientific; and it is this messy, turgid reality that some social-research strategies aim to overcome. Researchers who are comfortable working in the positivist tradition seek to delineate an extant, objective reality (though they now resign themselves to "agreement reality," or observations stripped of personal subjectivity). In order to generalize and ultimately explain social features (e.g., beliefs, attitudes, stances), positivists must reduce social complexity. One reductive device is the experiment (fabricating conditions under which observations can be made of a specific set of prearranged tasks). Another is the closed-ended survey, where participants respond, in the abstract, to questions that define the variables under study. For each question, the respondent chooses, from among those offered, an option that fits (or "comes closest to") her "true feelings." These choices become the data that, as Howard Becker has put it, serve as proxies for states of mind that we can observe only indirectly. The result is explanation based on thin description (i.e., without context and nuance as opposed to the thick description that comes with richness of data). While the case study method is not synonymous with qualitative field work, its delineated focus favors such a nuanced, in-depth approach to data generated in naturalistic settings. Attention to front and back stage, and the relationship between them, adds depth and richness ("thickness") to data, which the case study method can accommodate.

Application

The dramaturgical terms are especially useful for research undertaken in socially differentiated settings—where each actor juggles myriad roles. They are crucial for making sense of hierarchical structures (e.g., businesses and other bureaucracies, or stratified communities). Their utility was, for example, aptly demonstrated—not long after their introduction—in Gerald Berreman's analysis of caste principles and practices in an Indian Himalayan village. Where inequality prevails, not only is there much at stake interactionally, but front and back stage "realities" are apt to be sharply at odds with one another. The ability to access, appreciate, and compare regional performances is a methodological

must, if analysis is to avoid oversimplification and misrepresentation. In this regard, the work of James C. Scott deserves note. Renaming front- and back stage behavior as "public" and "hidden" transcripts, respectively, he has shed light (not uncontroversially) upon the concept of hegemony (i.e., ideological compliance of subservient people) and forms of political resistance, casting serious doubt on data derived from official sources or through arm's-length techniques.

Further Implications

Ironically—or, perhaps, not—and finally, just as researchers observe and interpret others' performances, hoping for access to the back stage, they too take the stage before their audience of research participants. The researcher's impression-management skills—limited by embodiment issues, that is, ascribed traits that "give off" impressions—will impact significantly upon the data that can be generated through interaction. They must be taken into consideration.

Constance deRoche and John Estano deRoche

See also Constructivism; Depth of Data; Dramaturgy; Management of Impressions; Naturalistic Context; Self-Presentation; Thick Description

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FUNCTIONALISM

Functionalism in the social sciences is the general thesis that phenomena can be explained strictly with reference to what they do rather than what they are. This is the general orientation of *functional*

explanations. Specialist versions of functionalism or references to functional properties are sometimes used that are more precise in their target. For example, in sociology, functionalism refers to the notion that societal structures function for the survival of society as a whole, a tradition heavily dependent on the work of Talcott Parsons. In the philosophy of mind, functionalism was influenced by, among others, Ned Block, who characterized mental states as functional states. This was habitually related to the metaphor of the computer, namely that functional states were, in some sense, like computer programs. More generally, however, functionalism as an explanatory strategy is ubiquitous in the social sciences in a form that is "heuristic" or indeterminate. This is a form of functionalism that uses categories of explanation that describe functions without any commitment to what these categories are as objects. In this sense case studies, field studies, and experimental research all make use of a similar strategy. This discussion of functionalism uses examples drawn mainly from psychology, but they can be generalized across the social sciences.

Conceptual Overview and Discussion

Functionalism emerges in the 19th century from studies in biology and physiology where function is placed above anatomy in importance. The discovery that biological functions cross multiple organs meant that knowledge of organ structure alone was insufficient for knowledge of how the body functions. Furthermore, early proponents of functionalism, such as James Rowland Angell, attributed the view to Herbert Spencer and Charles Darwin. A number of historians of psychology have claimed priority for functionalism in psychology by noting that functionalism became a unique school of psychology in the late 19th century. This was due largely to John Dewey's well-known 1896 publication promoting functionalism as a solution to a debate concerning the interpretation of reaction time research in the 1890s. He argued that it made more sense for the psychologist to orient his or her attention to acts or functions, rather than stimulus and response, where the latter could only be teleologically associated with sensation or movement. Furthermore, individual functions were coordinated within the sequence of acts by both attention and sensitivity to the environment and by virtue of the forward momentum of continuous activity. Dewey's functionalism was taken up as an important and novel position in psychology, but only in name. His psychology was never adopted, save in a piecemeal fashion by his followers, and would soon be overshadowed by behaviorism. Functionalism, in the hands of Angell and others, became established as the psychology that concerned itself with mental activity and biological processes.

In sociology, Émile Durkheim expounded a version of functionalism at about the same time. His version was substantially different from Dewey's, however, since it was concerned with the contribution a "social fact" makes to the needs of society. Sociologists continue to use various forms of *functional* and *functionalism*. In biology, too, the notion of a function has received widespread attention in recent decades and is used to describe the "functions" of organisms or their subsystems. Other disciplines have also made use of the terms, borrowing in various ways from biology or other social sciences.

Modern functionalism reentered psychology explicitly in the form of a thesis derived from cognitive science and philosophy, which argued that mental states were not only real but also capable of exerting causal influence. According to Block this was a thesis about the differences between mental and physical properties such that mental states were considered by their function rather than their constitution. One consequence of this view was the claim that functional states could be "multiply realized." This referred to the notion that a computer, human brain, animal brain, or "Martian brain," for that matter, could all be in the same state (e.g., pain) despite having very different physical states that realized these states of pain. This version of functionalism was attractive to cognitive scientists looking for a way to show how nonphysical states could cause physical states and vice versa.

Sometimes an additional requirement is added to this form of functionalism, namely that the functional state be "characterized extrinsically." This means the functional state has to make a difference in the observable states. Hence a functional or unobservable state between a stimulus and response counts only if it can make a difference observationally. What actually counts as a functional state is not relevant to this claim; functionalism is entirely

agnostic with respect to ontology for the sake of explanatory expedience.

Indeterminate Functionalism

Within the social sciences, the use of functional descriptions is ubiquitous. This applies to almost all forms of research and hence also to case studies. Most descriptive categories rely on some version of functionalism that is noncommittal with respect to what the object of investigation actually consists of. Objects and properties are not realistically but heuristically defined. Such heuristic, functional accounts can refer to cognitive, social, behavioral, or even psychodynamic entities and these can be fused in turn to biological or neuropsychological accounts. Hence the claim that functional descriptions make no commitment to real entities; they are ontologically mute. However, this is also their power; namely, they are flexible and can be expanded indefinitely. For example, modularity in cognition refers to functional (mental) properties, just as notions such as short-term memory do. Their presence must be inferred from functions. The field of personality psychology is populated with thousands of functional entities (e.g., selfpresentations, expectancies, self-definitions, selfverification, infrahumanization, and so on, being examples from recent volumes of the Journal of Personality and Social Psychology). The literature on clinical psychology, developmental psychology, and so on, would generate equally long lists of functionally defined entities that are almost wholly described by procedural fiat. (Perceptual and psychophysical theories are more complex and hence not included in this discussion.)

These functional entities are largely invented anew at a high rate and their relationship to one another is not always of concern to researchers. Functional accounts are both useful and limited. They are useful because their inherent flexibility and manner of reproduction allows even the neophyte to produce research topics and research studies. Furthermore, there is in principle no restriction to the kind and degree of functional entities that can be introduced and elaborated theoretically. They are limited because they encourage a proliferation of hypothetical entities such that there is little observable progress or concern for the ontological status of these entities.

The indeterminate nature of functional explanations is not relativistic. There is typically some empirical content that grounds such explanations in any individual case study or experiment. For example, we have descriptors for memory processes that are produced empirically in any one study or research program. We do not have an empirical limit, however, to the extent and kinds of descriptors that can be generated; that is, the pool of functional entities to describe memory remains indefinite. A quick perusal of the literature informs us that we can use such functional descriptors as sensory, short-, and long-term memory; autobiographical memory; and recognition memory, as well as numerous models of memory and attendant processes such as encoding, maintenance, retrieval, and so on. Each of these terms is frequently associated with a particular research program and sets of methods that have come to define the content of the program. What they do not commit to is a particular object called "memory," nor do they elucidate the nature of individual acts of remembering.

Critical Summary

Indeterminate functionalism, sometimes called heuristic functionalism, or role functionalism, is said to be in danger of sliding into dualism or radical reductionism. It potentially slides into dualism because it does not commit itself to real properties and hence can be viewed as immaterial. It is in danger of sliding into reductionism because it carries a promissory note claiming that eventually functional entities will be known in a fully reductive fashion. That is, once properly understood, a functional account will one day give way to some version of neurophysiology (at least in psychology).

A strictly reductionist account would end up eliminating the very phenomena of psychology that we want explained.

In sum, the capacity to multiply functional entities indefinitely makes the process open ended without seeming anarchic. Furthermore, without a commitment to the kinds of processes that are psychological, the discipline moves between the Scylla of dualism and the Charybdis of reductionism. At the same time, the extrinsically characterized, functional conception of entities ensures that fields of inquiry continue to be preoccupied with the search for mechanistic-like properties that can be multiplied across research studies. Hence, for these and other reasons, this version of functionalism works to maintain a certain unified sense of what constitutes a psychological object or property and how is it to be explained.

Henderikus J. Stam

See also Activity Theory; Case Study and Theoretical Science; Critical Realism; Epistemology; Inductivism; Objectivism; Probabilistic Explanation; Scientific Realism

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GENDERING

Gendering is the process of ascribing characteristics of masculinity or femininity, femaleness or maleness to a phenomenon (i.e., a role, position, concept, person, object, organization, or artifact), usually resulting in power and privilege, voice and neglect, or advantage and disadvantage, as drawn along the lines of sex and gender.

Conceptual Overview and Discussion

The process of gendering serves to create something that is "gendered"—that is, that causes a division based on sex or gender and that privileges one sex or gender, thereby silencing or suppressing the other. For example, the role of nurse is significantly gendered in that it is generally expected that a woman would possess the feminine characteristics thought necessary to carry out the role successfully. It is said that women possess an advantage when it comes to hiring and promotion in this career. The opposite occurs in the gendering of occupations such as engineers and chief executive officers. Studies demonstrate that men are privileged in such occupations, due to the traditionally male characteristics deemed necessary for success within such positions.

Several organizational theorists have written about the genderedness of organizations in their entirety. By this, they are referring not only to gendered positions as discussed above, but to the structures, roles, rules, policies, relationships, and identities that are privileged or silenced due to the characteristics of sex or gender ascribed to them. Much research has been done on the genderedness of organizations, as related to issues of the presence of gendered structures, policies, and procedures, as well as the outcomes of such. As a result, researchers have identified what gendered organizations look like and the impact on disadvantaged groups (i.e., job segregation, underrepresentation of disadvantaged groups in management, glass ceilings, mommy tracks, etc.). Despite the fact that organizations have been identified as being gendered for quite some time, researchers are still trying to better understand the processes responsible for the creation and maintenance of these gendered organizations—that is, the *gendering*.

Central to the development of this research is the more recent (within the past two decades) notion of gender as a dynamic process. Candace West and Don Zimmerman were instrumental in shaping this new understanding of gender as something people do, as opposed to something people are, in the publication of their article titled "Doing Gender" in 1987. Although not the first to identify gender as a process (this had been suggested in other academic fields prior to 1987), their article solidified researchers' understanding of gender as a social process and emphasized the importance of this understanding in organizational research. Shortly after publication of this important work, Patricia Yancey Martin further problematized the notion of "doing gender" and used the term gendering in an unconventional way throughout much of her work in the 1990s. Her work is frequently cited and well regarded.

At the same time that the work noted above was being produced, Joan Acker and her colleagues were working on the conceptualization of social structures (organizations included) as gendered. In "Differential Recruitment and Control: The Sex Structuring of Organizations," Joan Acker and Donald R. Van Houten note the apparent genderedness of organizational structures and positions. Within this piece, Acker and Van Houten note the existence of gendering processes but do not refer to them as such. It is not until her solo work of 1998 that Acker uses the language of gendered processes. In Class, Gender and the Relations of Distribution, Acker contends that the organization of labor and production are gendered and that this genderedness is a result of gendered processes. It is here that the notion of gendered processes first comes to the forefront in Acker's work. It is also where she provides a definition of gendered and introduces her notion of *gendering* as the processes within organizations that are responsible for the creation of gendered organizational phenomenon.

One of Acker's most influential and often-cited works appears in 1990 in an issue of *Gender & Society*. Titled "Hierarchies, Jobs, Bodies: A Theory of Gendered Organizations," this is an attempt at a systematic theory of gender and organizations and provides a framework of gendering processes. According to Joan Acker, there are five types of gendering processes in organizations. They include gendering practices/structures, gendering cultures, gendering interactions, internal gender constructions, and gendering organizational logic (or the gendered substructure of the organization).

Several other organizational researchers have endeavored to identify and describe these gendering processes, particularly those within the organization culture paradigm. Due to these contributions, as well as those noted above, significant progress has been made in terms of better understanding of how gendering occurs. For example, it has been widely recognized that masculine cultures, characterized by masculine slogans, symbols, and metaphors, play a prominent role in the gendering of some organizations. The notion of "guerilla marketing" provides a good example. Multiple organizations have adopted this concept in an attempt to "rally the troops" and to encourage aggressive marketing. In addition, the concept is taught in many business schools. The use of this metaphor can be seen as gendering the process of marketing and the tactics employed. This may silence those wishing to adopt less masculine tactics and may privilege those possessing predominantly male characteristics.

Another theory of how gendering occurs suggests that individuals doing gender in organizations are responsible for the creation and maintenance of gendered organizations, particularly, but not exclusively, those in power positions. This line of thinking suggests that everyday interactions, understandings, and internal gender constructions serve to reify already gendered notions or logics within the organizations and, in effect, are responsible for the gendering of the organization. Examples of this include men asking women to serve coffee, women adopting nurturing management styles, and men and women adopting conversation styles that privilege men while essentially silencing women.

Application: Gendering at Pan American Airways

Acker's work provides one of the most compelling and comprehensive frameworks through which to study the gendering of organizations. Her work provides a possible heuristic for the examination of gendered organizations that could potentially build on the success of the culture paradigm and other works aimed at understanding the gendering of organizations. In her 1990 article, "Hierarchies, Jobs, Bodies: A Theory of Gendered Organizations," Acker identifies five general categories of processes that lead to gendered organizations. The following provides a brief overview of these gendering processes.

Gendering Practices/Structures

The first set of processes is described as the production of gender divisions. These can be seen in the gendered patterning of jobs, wages, and hierarchies. An archival study of Pan American Airways (PAA) conducted by Kelly Dye and Albert Mills concluded that these could easily be observed through the identification of rules and roles that indicated that some positions were more appropriate for men while others were more appropriate for women, or promoted the advancement of one group while hindering the other. This was captured through formal

and informal job requirements, photographs of employee groups, and internal memos.

Gendering Cultures

Acker's second set of processes includes the creation of symbols and images that serve to create lines of privilege and power in terms of sex and gender. The effects of these can be analyzed on both a societal and an organizational level. For example, organizational symbols and slogans emphasizing strength, speed, or power help to create an environment that values characteristics traditionally associated with maleness. At PAA, men were praised for being strong and growing large mustaches and were always referred to as the "head of the household," while women were referred to as "gals" or "cuties." Similarly, popculture icons help to shape societal understandings of what it means to be male or female.

Gendering Interactions

Acker's third set of processes describes the interactions between individuals that enact dominance and subordination and/or silence or privilege one group over another. Moving to a more intimate level of analysis, this category emphasizes the importance of individual-level interaction as a gendering instrument. The aforementioned study of PAA endeavored to identify these processes by looking at how men and men, women and women, and men and women interacted. Although not witness to actual conversations per se, it was possible to identify how interactions were "supposed to look," as sanctioned by PAA executives, employee contributors to the internal newspapers, article writers, and editors. In this instance, cartoons were often valuable sources as they described several types of relationships; that of the boss and the secretary, the boss and the mistress, female coworkers, and the relationship between male and female coworkers.

Internal Gender Constructions

The fourth set of processes encompasses the internal mental work of individuals as they make sense of what it means to be a man or a woman within their organization, and the behaviors

deemed appropriate as a function of their sex. The task of identifying such processes becomes more difficult as there is a need to "see inside" the thoughts and feelings of individuals as they construct their gender identities. Participant observation, analysis of diaries, and ongoing interviews may be able to capture pieces of this process set. In the case of the PAA study, reliance on the understanding that individual identities are constructed through discourse was essential, as was the understanding that discourse analysis provides a way to unpack this construction. Discourse analysis of archival materials from PAA was used to examine how men and women wrote about each other and themselves, and what the discourses suggested would be appropriate ways for men and women to construct their identities, were studied.

Gendering Organizational Logic/Gendering Substructure

The final set of processes is centered on organizational logic and the gendered substructures that are reproduced in daily organizational activities and the writings of organizational theorists. Seen as fundamental, ongoing processes that encompass and influence the other four processes, these processes require study at an entirely different level of abstraction (i.e., the study of the logic inherent in and affected by organizations and the people within them). The PAA study concluded that a study of dominant and competing discourses within the organization, set against larger societal discourses, might help to better understand the underlying logics or structures that are responsible for gendering the organization.

Critical Summary

As stated previously, organizational researchers seem to agree that organizations are gendered, and progress has been made in terms of learning much about processes that may be responsible for the gendering. However, there is not agreement among scholars as to which processes are most important for the study of gendered organizations and the subsequent reduction or elimination of such gendering. Despite the disagreement among scholars, much progress has been made in terms of understanding gender as an ongoing social process and

the subsequent effects these processes have on the gendering of organizations.

Kelly Dye

See also Discourse Analysis; Masculinity and Femininity; Poststructuralist Feminism; Sexuality

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GENEALOGY

Genealogy is a method that defamiliarizes the taken for granted by rejecting linear histories of knowledge that emerge from a single origin. Genealogy attempts to uncover the history that has been hidden in the construction of a logical narrative of how the past occurred through an examination of the descent, emergence, and trajectory of events. It is an appropriate methodology

for case studies that seek to understand how popular knowledge has been repressed, or for those that strive to determine how struggle and conflict have resulted in the exclusion of particular parts of history. There is, however, a danger that once revealed, repressed knowledge and history can be adopted back into the dominant discourse. Genealogy does not propose to replace one truth with an even better truth but to show the contingent, accidental, and precarious nature of the present and of history.

Conceptual Overview and Discussion

Genealogy is associated most closely with the work of Michel Foucault and his extension of Friedrich Nietzsche's concept of an "excess of history." This is a state where the contingencies, contexts, and alternative explanations for the present are viewed as inconvenient extras and thus are forgotten. As a counterweight to this process of forgetting, genealogy uncovers the silences, accidents, and intersections that have resulted in a taken-for-granted approach to knowledge. In contrast to historiography's question of "what is our past?" genealogy asks "what is our present?" To answer this question, genealogy departs from traditional histories in two significant ways. First, genealogy does not portray the present as the inevitable outcome of a select series of past events. Through two of its methodological components known as descent and emergence, it uncovers the contingent and indifferent nature of history. A second feature, problematization, drives the genealogical project by seeking to understand how the present has come to be defined and understood in its current form.

Descent and Emergence

For the genealogist, the present emerged and descended from a series of discontinuities that could have, under different circumstances and in a different context, produced something quite different. In genealogy, the utilization of history to explain the past is eliminated in favor of a contingent and contextual approach. This requires a suspension of belief in current views of knowledge acquisition and the development of a deep suspicion about any natural and self-evident truths

about the subjects and objects of interest. Contrasting genealogy with history helps explain how it works in practical terms: A history that explains the past further entrenches current conditions, whereas a history of the present seeks to understand how the present has come to be organized. Historical events are linked together into a rational, linear progression from an origin toward the current order of things, whereas the genealogist seeks to demonstrate that the present is not the product of an inevitable series of events. Genealogy removes the comfort of the present as a natural and better place than the past so that the present may seem equally as contingent. In practical terms, the method of genealogy involves an examination of the descent and emergence of various historical trajectories. Descent deconstructs the taken-forgranted nature of the present, enabling the genealogist to identify the precontexts of the taken for granted. It investigates and uncovers contingencies, accidents, and mistakes to relate a story of knowledge production that does not take a linear, inevitable path. While descent disturbs the given, emergence points out interactions in the details of descent that result in what appears to be a given. In other words, the present has struggled to emerge through multiple contingencies and accidents, without goals or progress, as the current resting point rather than a terminus.

Problematization

The problematization of the present is at the core of genealogy. Problematization does not create an object or explain something that already exists. Rather, it enables the products of discourse (institutions, propositions, or rules) to be seen for what they are: the sites of claims to truth, and ways of governing the behavior of others. Problematization thus reframes the conduct of historical analysis to understand how it has transpired that the present has come to be accepted as inevitable or natural. It is not an excuse to rewrite history, however, or to make factual errors in relating history. One must also be cautious to avoid framing the past in terms of current understanding: Genealogy does not view the present as static, and so today's problems and concerns will be different in the future. Further, there is no need to search back to the beginning of recorded history in

problematizing the present as problematizations emerge at a specific point in time. Problematizations do not repeat themselves, but occur as background noise in a continuity of other events and emergences. As they span large historical periods, the method of studying problematizations must rely on primary and secondary sources. Thus, it will often involve accessing archival material for historical documents as well as secondary sources from historians. It should be borne in mind that while genealogy does contrast sharply with traditional historiography, it does not outright reject coopting existing histories to serve its own ends.

Genealogy is archival in its method in two senses of the word. First, it is archival in that the genealogist works within physical archives and with primary and secondary source texts. But the archive also refers more broadly to the canon of statements that emerge and persist within a society at any given period. In the former sense, the archival nature of genealogy implies that existing methods for accessing, searching, and documenting archival research can be used. This includes the understanding of archival sedimentation: that materials are collected, kept, and then deposited into archives in an unsystematic manner from which will emerge various different layers of documentation. Existing histories can be used where there is limited completeness of the archival record and thus can provide welcome bridges between long periods where there are no primary sources. This reuse of the grand narratives created by historians that point to a continuous and unfolding historical picture are useful for genealogy in that they serve to contrast the accidents and contingencies displayed in a genealogical approach.

Application

Foucault did not leave a methodological text from which people could understand how to utilize genealogy. However, the wealth of empirical and theoretical scholarship on genealogy provides a more than adequate road map. Perhaps the ideal starting point for seeing genealogical method in practice is Foucault's *Discipline and Punish*. While Foucault's work does not adopt a case study approach, it should be read by anyone interested in undertaking a genealogical analysis. Fortunately, there do exist exemplary pieces of case study

research utilizing genealogy. One of these is by David Knights, Fergus Murray, and Hugh Willmott, who looked at the case of the creation of an electronic trading network known by the pseudonym Switchco for the life insurance sector in the United Kingdom. The story of the case follows the establishment of the Switchco network, and in particular, the discursive construction of the knowledge workers who make up the individual insurance firms that are part of the network.

Elements of the genealogical method are evident throughout the case methodology. Descent is found through the authors' deliberate avoidance of a linear history of the creation of the Switchco network. Instead they choose to illustrate the ongoing and dynamic fashion in which the knowledge workers recreated their involvement in the project. The authors illustrate the competing interests, contingencies, and accidents that form the descent of the Switchco network. Further, by pointing out the details in the interaction of the descent, they show how the object referred to as knowledge work, as embodied by the network, emerges from these multiple, divergent, and contingent circumstances. The case also demonstrates the problematization of knowledge work. The authors attempt to show through the genealogy of Switchco that knowledge work is not simply a job categorization; rather, it indicates changes in work organization as a result of greater influence of information as a resource.

In another illustrative case, Kate Kearins and Keith Hooper examine the role of accounting in the acquisition of land from the Maoris in the 19th century. The case is doubly useful as the authors provide an extensive description of their use of genealogical method throughout the case. In the late 19th century, Europeans began to acquire large portions of land from Maoris in New Zealand. The authors contend that the historiography of land acquisition relates a story of Maori innocence and European dirty tactics. However, Kearins and Hooper reject this linear approach to colonial history and instead utilize genealogy to examine the descent of land acquisition. The physical archive for the genealogy consisted of the correspondence between one of the Europeans, Sir Donald MacLean, and his accountant, together with additional material from the New Zealand government archives. The genealogy points to the emergence of accounting practices in determining how the Maori came to accept and participate in the loss of their land. Therefore, the authors problematize the role of accountancy in mediating the acquisition of Maori land.

Critical Summary

There are strengths and weaknesses in employing genealogy as a case study methodology. As good case studies thrive on the availability of rich detail, genealogy responds well as it functions on a detailed understanding of history. Genealogy provides alternative explanations within a particular case by problematizing the objects of discourse and through the use of the methodological tools of descent and emergence. While the strength of genealogy is its ability to move beyond linear explanations of how the past resulted in the present, the method of achieving that strength is a drawback for case study research. Ideally, genealogy relies on painstaking and laborious archival research that often extends beyond the boundary of a single organization or event. For the case study researcher, the task becomes a judicious choice of limiting the time frame studied for a particular problematization so that it becomes manageable. Another challenge is to understand and correctly apply the methodology. For this, one has to rely on secondary interpretations of Foucault's work as well as examples of the methodology in practice as presented in the application section of this entry.

Adam Rostis

See also Archival Records as Evidence; Content Analysis; Decentering Texts; Discourse Analysis; Document Analysis; Documentation as Evidence; Poststructuralism; Power/Knowledge

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GENERALIZABILITY

Drawing on the etymology of this term, *generalizability* refers to the ability of extending the validity of one's case study conclusions to other cases of the kind. More commonly, generalizability refers to a broad concern that arises when researchers have studied one or a few cases and ask: Do our findings, our insights, or our descriptions apply to other cases? Generalizability is thus more or less synonymous with the notion of external validity.

Many strategies have been proposed to support claims for generalizability. In fact, their legitimacy depends on the ontological assumption underpinning the research at hand, whether it be positivistic, realist, constructivist, or postmodern. While none of the proposed strategies are fully convincing, some researchers devote much energy to ensuring generalizability; others propose the reader is responsible for applying case study results to other case studies; and still others shrug off the question of generalizability, asserting its irrelevance for case study research. The question of the relevance of generalizability also highly depends on the reason researchers are interested in the case: Do they want to know more about the specific case itself, are they aiming at some general "truth," or do they want to dip into a specific case to foster an understanding of the complexity of given situations?

Conceptual Overview and Discussion

The notion of generalizability has long been a concern for survey researchers. When, for matters of feasibility, they need to confine the study to a sample, they want some assurance that the conclusions remain valid for the entire population. Many statistical tests have been designed to certify the possibility of the generalization of their results. But because a precondition for ensuring generalizability is a large sample size, which is unlikely when undertaking case study research, these statistical tests are not always feasible for case study research.

From a positivist approach, the researcher looks for correlations between phenomena or variables. The more general are the findings, the more valuable is the research. In this endeavor, a case study can represent only a very small sample, exploring a new context, giving the "flesh" and the circumstances for a better interpretation of the correlation. But in order to ensure the generalizability of case study findings, further studies that rely on the same logics as survey research are required. A case study provides the exploratory phase of research upon which more extensive quantitative research can be based.

Most of the various strategies in case study research that act to ensure generalizability rest on realist ontological assumptions. This means that a reality is presupposed as existing underneath and underpinning the apparent world. A case study is one of the best of manners in which to access this underlying reality. Once this reality has been rendered visible and explainable thanks to one case study, the researcher seeks to verify the existence of that reality in other cases to assess the extent to which the findings are generalizable to a specified population. This process has been undertaken in research informed by realist ontological assumptions, including that of Barney Glaser and Anselm Strauss, Robert Yin, and Haridimos Tsoukas.

From a constructivist approach, the researcher approaches his or her research on a given phenomenon with the assumption that the phenomenon as such exists only through his or her mental appreciation of it. Thus, from this approach, the researcher does not infer as to the possibility of generalizability. The reader must, however, assess whether the proposed insight may help him or her understand other cases of interest. This is one reason that Yvonna Lincoln and Egon Guba have proposed replacing the concern for generalizability with that of transferability. Robert Stake's as well as Robert Donmoyer's strategies have followed in the approach set out by Lincoln and Guba.

From a postmodern approach, the very existence of a "case" is put into question. The case is seen as a particular framing of the world that has no superiority over others, and that is often phallo-, ethno-, or logocentric. The case study becomes an opportunity to uncover the way in which we frame problems, representations, and power relations that a society and academic sphere impose. It enables the possibility of voicing and recognizing the silenced and unconsidered, and of addressing from a specific viewpoint generic problems of our society and our being-in-the-world.

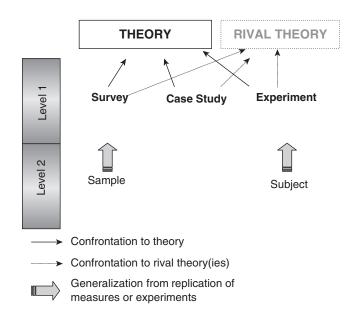


Figure I Statistical and analytic generalization

Source: Yin (2002).

Notes: Two levels of generalization, according to Yin. Analytic generalization refers to level 1, whereas statistical generalization is on level 2.

The question of generalizability is here downplayed in favor of the question of exemplarity and justice.

Application

As we have seen, there are several perspectives on generalizability that each offers a different strategy for claiming generalizability. Let's see the various rationales underlying these possible strategies. Barney Glaser and Anselm Strauss, in their *Discovery of Grounded Theory*, have drawn a distinction between statistical and analytic generalization. On the one hand, statistical generalization infers from a sample of the characteristics of the whole population, requiring an interpretive second step from these characteristics to theory. On the other hand, an analytic generalization is a direct confrontation of the case study with an established theory (see the representation provided by Yin in Figure 1).

Drawing on the preceding distinction, Yin proposes that the researcher replicate his or her case study to a small number of cases where the conclusions are understood to fit and not to fit (e.g., one

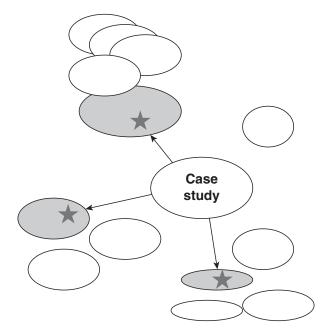


Figure 2 Generalization in grounded theory

Source: Glaser & Strauss (1967).

Notes: In the constant comparative method, conclusions are tested in a case of a near population in order to expand generalizability.

should study three or four cases where the conclusions can be seen to fit and not to fit). In the instance where the researcher finds cases in which the theory does not fit, it is up to the researcher to provide a theoretical explanation for the lack of reproducibility of the theory. This is done in hopes of rendering the conclusions more robust. At the end of the replication process, the conclusions can be said to be generalizable. If other researchers show the lack of application of the findings to other cases (where according to the theory it should), it is up to the previous researcher to provide an explanation that supports his or her observations as to why the conclusions were applicable. Through this progressive process, the generalizability of the results of one case study to other cases is rendered more precise.

Another strategy for increasing generalizability is provided by Barney Glaser and Anselm Strauss. According to them, generalizability is to grow in "circles" (see Figure 2). The conclusions of one case study are tested in a slightly different setting, and then step by step to a larger circle of settings. For example, one could test the conclusions of a

given case in different federal departments of a federal agency, followed by different departments in different agencies, different regions of a nation, and, further to different nations. If the findings or the concepts are still valid after this process, it may be safe to assume the conclusions of a given case study are generalizable to a wider population. However, if the conclusions are not valid, then the conclusions must be amended so that they can apply to both the previous cases and the new environment. In the end, the concept or the theory will no longer be context specific, and the researcher ends up with a "substantive" (general) theory.

Haridimos Tsoukas proposes a more direct generalization strategy that is based on critical realism. According to him, the case study offers the opportunity to uncover the causal powers and generative mechanisms that reality imposes on the actual world we experience. Researchers seek out universal causal laws and necessary ways of acting. If the researcher has fostered a deep enough understanding of the reality of the situation at hand, then the said causal powers and generative mechanisms, because they represent the underlying reality, have a high degree of generalizability. If the generative mechanisms were not observed, it would be the researcher's responsibility either to explain the obstruction or amend the theory. It must be noted that for a researcher to adopt this method of generalization, the researcher must be sympathetic to critical realist ontological assumptions.

Lincoln and Guba have objected to realist ontological assumptions. Instead, they impose upon the reader the charge of ensuring the generalization of the theory of question. Lincoln and Guba propose the image of a hologram in which each part contains all the features of the whole. Using this metaphor, they state that the case study contains all the features of the whole. That means that if the case is akin to a microcosm of the general, then what was observed and theorized in the case study has a certain degree of generalizability. Of course, the degree of generalizability will not be valid in every situation. If a reader wonders whether the conclusions apply to another situation, he or she is in charge of assessing whether or not this new situation pertains to the same whole of which the first case study is a hologramic piece. The reader would then not generalize the findings to the new setting, but rather transfer them to this new setting to test their applicability.

Stake makes the case for a naturalistic generalization. Stake notes that, while studying the case, researchers gain a subjective understanding by recognizing their experience in the natural world. They may have the skill to help the reader in sensing the subjective understanding in question. These experiences are general by nature, even though they again may not be present in every situation. The value of the case study and its generalizability is confirmed when, if faced with a similar situation, the reader is able to recognize the resemblance of experience and is able to put it into practice. With a reversed logic, Robert Donmoyer advocates that the reading of a case study may make us live rather unfamiliar situations. Thus, we gain experiences that we could not have accessed otherwise. This knowledge will possibly be used, that is, transferred (generalized) to other situations. In these latter approaches, generalizability is not asserted or proved, but proposed as a possibility that the reader may find useful.

In a more postmodern strategy Jean-Luc Moriceau remarks that what will happen in other cases is not the same features, but a mix of sameness and difference. Repetition, a concept borrowed from Gilles Deleuze's Difference and Repetition, could be a more useful concept than generalization for thinking of external validity for case studies. Taking the singular case of the Enron collapse as an example, generalization would either mean that the same unethical behaviors would reoccur identically (what the Sarbanes-Oxley Act of 2002 was meant to prevent) or suggest that these are necessarily due to the inner structure of capitalism. Repetition would suggest that similar misdeeds will reoccur, but be full of dissimilar features. Problems are repeated, but new ways of dealing with them are constantly reinvented. Such a case study is rather meant to show problematics, raise questions, or describe possibilities than to bring a knowledge that would be valid, identically, in other settings.

Critical Summary

The notion of generalizability as it pertains to case study research is sometimes scorned by researchers who seek to establish correlations between large numbers of instances. But this does not mean that a case study's external validity is weak. Rather, other generalization strategies have to be put forward. Yet, before generalizability can be sought, researchers must acknowledge the ontological assumptions of their research and find a method of generalization that is consistent with their assumptions.

However, one can also wonder whether the aim for case study research should be results in which generalizability is sought. First, it is questioned whether the aim for case study research be the generation of rich knowledge of a given phenomenon or less rich but generalizable knowledge of that phenomenon. Second, the case study method may seek other kinds of insights, a nonexhaustive list of which would include uncovering unjust relations or situations, the proposition of new ways of looking at situations, the better understanding of other beings in the world, or the power relations that are implied in a specific way of doing research.

Jean-Luc Moriceau

See also Analytic Generalization; Case Study and Theoretical Science; Genericization; Middle-Range Theory; Naturalistic Generalization; Number of Cases; Statistical Generalization

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GENERICIZATION

Genericization is the process of forming generic knowledge through providing a higher conceptuallevel generalization of local substantive knowledge generated in case study research. Genericization strives to transcend the singularities of local substantive knowledge regarding a certain phenomenon in order to discover metarelationships that this local knowledge instantiates. In other words, genericization aims to encapsulate local knowledge in synthetic generic statements that are expressed more often in natural language than in mathematical terms. Generic knowledge is particularly valuable in organization studies when it provides stimulating insights into recurrent concerns in organization practice that are not yet satisfactorily illuminated by knowledge already published in academic or professional journals. It is particularly valuable when it contributes to filling theoretical gaps relative to enduring practical concerns.

Conceptual Overview and Discussion

Before explaining genericization, the notion of generic knowledge has to be characterized more precisely. It extends the notion of generic proposition developed by the pragmatist philosopher John Dewey. Generic knowledge expresses knowledge about kinds of things and processes rather than about particular instances or about statistical regularities. The so-called generic drugs in the medical field offer a good metaphor for grasping the meaning of the term *generic* in the phrase *generic knowledge*. A generic drug's labeling, namely its chemical name, captures the specific core of a drug that can be found under various brand names.

The notion of generic knowledge did not diffuse rapidly in the social sciences. This may be because it poses a number of epistemic questions, such as: How do we acquire knowledge about a certain kind of thing or process if we have a limited number of examples, or have experienced only a single instance of the thing or process in question?

Robert Prus used the term in 1987 in the field of organization studies to equate generic social processes to the dynamic features of association that transcend the content or substantive features of group life. One form of negotiation that takes place in a group, for example, can be envisioned as an instance of a generic process, while the items being bargained for denote the content mediated through this social form.

In the mid-1990s, the notion of generic knowledge was taken up by researchers from various cognitive sciences who were curious to investigate pending epistemic questions. For instance, Sandeep Prasada underscored that generic knowledge involves knowledge of properties that are considered essential for being a particular kind of thing, for instance, dogs have four legs. At the same time, generic knowledge is not rendered invalid by the existence of what seem to be counterexamples; for example, the fact that there exist some dogs that have only three legs does not render the above statement false. Besides, when a certain kind of thing has certain properties, it is considered to be by virtue of being that thing, not by virtue of any hidden underlying mechanism.

The notion of generic knowledge does not imply making a positivist or realist ontological assumption of the existence of a unique real world governed by law-like underlying mechanisms. Rather, it is consistent with constructivist epistemological paradigms such as Ernst von Glasersfeld's radical constructivism, as well as with interpretivist methodological paradigms, on which case study research often relies.

Genericization and the Use of Generic Knowledge About Organizations

Generic knowledge can take on the form of metamodels such as Michael Porter's five forces model, frameworks and configurations such as Henry Mintzberg's organizational configurations, as well as patterns such as Norwood Hanson's patterns of discovery. Patterns are built from regularities identified in the functioning or evolution of the kind of organizational phenomenon studied. In constructivist epistemological paradigms, these regularities are not viewed as resulting from permanent underlying mechanisms or law-like causal relationships. They are considered as perceived temporary stable patterns that, in organization studies, stem, for instance, from recurrent behaviors associated with organizations' formal and informal systems.

Genericization is a process for generalizing knowledge. According to Dewey, there are only two kinds

of general propositions, namely universal propositions and generic propositions. The elaboration of universal propositions taking the form of acontextual atemporal law-like relationships rests on an assumption, usually implicit, of existence and knowability of such underlying laws. The elaboration of universal propositions is usually considered inappropriate in constructivist epistemological paradigms. On the contrary, genericization appears as an adequate way to conceive of generalization in research carried out in these epistemological paradigms.

Genericization can be performed in an inductive way via the systematic study of multiple comparison groups and substantive theories as in the generation of what Barney Glaser and Anselm Strauss called a "formal grounded theory." Unlike the phrase *generic knowledge*, *formal grounded theory* has specific connotations that imply the following: a theory built by logical deduction from a priori assumptions and, most often, expressed in mathematical formalism. This connotation is limiting in that it does not correspond with what the authors initially advocated.

Generally, genericization relies on iterations and back-and-forth connections of the information gathered in the case study, local knowledge developed, knowledge available in literature, conjectures made by the researcher, and going back to the field to collect further information and back to academic literature to clarify emerging notions. Genericization is not a strictly inductive process. Abduction plays an essential role in this process.

Generic knowledge is characterized by the fact that, in order to be used in a specific setting, it needs to be contextualized and hence interpreted according to the idiosyncratic circumstances of the setting. Contextualization involves a complex thought process implying reflection and reinterpretation. This might lead to meanings that are quite different across local contexts and even induce modifications of the generic knowledge's initial meaning. Hence, contextualization cannot be viewed as giving values to predefined variables or parameters as in traditional contingency-based research. Moreover, if contextualization can be facilitated by researchers, it cannot be accomplished solely by them, even those acquainted with the specific practice context. In order to be put to use, generic knowledge demands local sensemaking and self-design in the practice unit.

This implies that generic knowledge cannot be tested and validated in an epistemological positivist sense. Alternatively, only its expression in specific contexts—hence its contextualization—can be tested. Since contextualization implies reinterpretation and reconstruction of the meaning of that knowledge according to the specific circumstances of the setting considered, the hypotheses to be tested would be contingent on the individuals who were active in the contextualization of that knowledge in the various settings. This makes statistical testing subjective and hence nonconclusive. Instead of ex post facto validation, the legitimization of generic knowledge is performed jointly with its elaboration. What this implies is that genericization and legitimization of the elaborated generic knowledge are carried out as two inseparable and simultaneous processes.

Generic knowledge can be put to the test of practical experience through attempts to activate it in settings where researchers consider it may be relevant. In this instance, what is tested is whether the practitioners who are active in the contextualization of that knowledge in their practice unit find it useful for sparking reflective dialogue, gaining pertinent insights on the problematic situation considered, and/or stimulating creative action.

The legitimization of generic knowledge may also be enhanced by its communication in professional meetings and/or in professional journals to practitioners. The complementary legitimization would come from the practitioners' acknowledgment of the relevance of this knowledge for reflecting on their practical concerns and finding solutions. The feedback that researchers obtain from the audience or the journals' editors and readers may be particularly valuable for further advancing the conceptualization of that knowledge.

Critical Summary

Statistical generalization of local knowledge seeks to extend knowledge developed in certain settings to other, slightly different settings. It does not aspire to develop novel insights from local knowledge elaborated in a particular research project. Unlike statistical generalization, genericization aims to suggest plausible connections and relationships among notions capturing fundamental aspects of the local knowledge that have not been published in the academic literature yet.

Marie-José Avenier

See also Abduction; Constructivism; Contextualization; Grounded Theory; Inductivism; Interpretivism; Postpositivism; Theory-Building With Cases

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GOING NATIVE

Going native is an experiential field work method in which the researcher seeks to see the social universe in the same way the people being studied do. This form of data collection takes the notion of participant observation beyond its usual limits, as researchers are encouraged to cross a line of objectivity to experience the world in the same terms as the people being studied in order to understand contemporary societies in their own terms. This method has both advantages and disadvantages and raises issues in larger debates about the

possibility of objectivity and the role of the researcher.

Conceptual Overview and Discussion

The term *going native* is indicative of the 1900 colonial imaginary in which Western science constructed the non-Western world as being inhabited by the objects of science, or "natives." Colonizers were conceived as being at the top of the human evolutionary ladder, but also as being at risk of being corrupted and falling from their moral pinnacle if they adopted non-Western knowledge systems, values, and beliefs.

In anthropology, this term is usually attributed to Bronislaw Malinowski, who formulated ethnographic field work as a paradigm and reflected on the relationship between researcher and the object of study. Based on his research experience in New Guinea, Malinowski suggested that in order to be able to grasp peoples' perspectives, their relationship to life, and their vision of the world, researchers should go native by taking part in peoples' social lives.

Since then, ethnographic field work has become a research method to explore communities and their patterns of social interaction, cultural meanings, institutional infrastructure, and process of change and conflict. This method is inductive and has been used for discovering issues and questions researchers were not previously aware of. By becoming participant insiders, as opposed to being mere observers, researchers can be able to feel, think, and even behave as insiders or natives. Accordingly, by "being there," the researcher has access to events, behavior, and contextual dynamics that enrich the experiential method in which the researcher becomes the instrument of data collection.

Since the research is conducted in the chaos of natural settings, the going-native field work method emphasizes the need to live in a native village for an extended period of time, sometimes years, for constant observation, and for learning the local language, learning exact recording, and separating inference from data. Arguably, collecting a broad range of concrete data such as observed incidences, genealogies, maps, and diagrams showing ownership of land gradually provides the resources for understanding the organization of the society being studied, its custom-

ary law and practices, and its culture. Thus, ethnographic data are not gathered only through conversations, observations, rituals, and interviews, but also through personal documents such as research journals, letters to colleagues and friends, and other forms of documentation recording researchers' thoughts and impressions. Going native and colonial fascination with non-Western cultures have led Western scholars to impersonate the sociohistorical role of studied societies through acts of cultural appropriation. This practice has exposed the relationship between colonialism and the production of knowledge and culture.

The method of going native has been challenged for its lack of scientific objectivity and claims of attaining knowledge usually reserved for community insiders. In coming to terms with the pitfall of observing and participating in a foreign community, many contemporary social researchers have become self-aware of their relationships with the communities they study, but although interest in these ethical dilemmas is increasing, not all social scientists are equally concerned.

The going-native method has been severely challenged for different reasons. One of the most serious methodological challenges to this approach focuses on objectivity issues and so-called observer bias. An observer/participant who is part of the context being observed has lost objective detachment and undermined the reliability and validity of observational data. In becoming too involved with people, the researcher changes and loses perspective and objectivity by taking on the perception of the people studied.

Yvonna Lincoln and Egon Guba, who have written extensively on qualitative methodology, argue that while prolonged engagement with people is necessary to build trust and rapport, researchers need to maintain a balance between their "insider" and "outsider" statuses. As well, James Clifford challenged traditional ethnography for assuming that field work is a ground of knowledge and that it has to be conducted in remote non-Western communities. He also questioned the ethnographer's ability to know "others."

The relationship between observation and participation has been central to ethnography since Malinowski famously encouraged researchers to move from the verandah to the community. In

recent years, the going-native approach has also become the focus of ethical research dilemmas. From this perspective, going native not only compromises the validity of the data but also the participants' well-being. Harold Lloyd Goodall Jr., who has written about the "new ethnography," argues that because, historically, the going native field work method has lacked objectivity, researchers must remember that both subjectivity and respect for participants are two important dimensions of the research process.

Therefore, self-reflection about field relations has shifted the focus from the native's point of view to the researcher's point of view. The practice of building and sustaining relations with people has provoked reflection on balance, the quality of research, and the well-being of participants. Balance refers to the researchers' obligation to tell the truth to the people being observed and to others. The quality of the research should be maintained throughout the entire research process, including the design, implementation, and reporting of results. Researchers also must avoid compromising the participants' well-being at all stages of the research. All these elements are based on ethical assumptions rooted in reformulated positivist and postpositivist epistemologies suggesting a different approach to conducting ethnographic field work.

Application

Ethnographic field work is frequently used to provide a descriptive study of human societies. Many anthropologists consider ethnography the essence of the discipline, although other disciplines such as sociology, psychology, and economics have used field work as a way of understanding the specificities of people's daily lives, institutions, consumers' behaviors, and the acceptance of new products or services. However, contemporary ethnography has moved away from the going-native approach and now focuses on central guiding questions connecting the local field site with larger questions about how culture works.

While the social and political dimensions of ethnographic research have been evolving over time, researchers have been increasingly encouraged to make their studies more responsive to community concerns. These concerns can be addressed by emphasizing a greater collaboration with participants and by making the relationship between researchers and participants more explicit in the research process. Similarly, critical approaches aim at not only framing questions but also promoting action. Critical ethnography goes beyond the description of culture by challenging power relations and promoting people's emancipation. Approaching research from the above perspectives requires the researcher to identify the nature of the researcher-participant relationship in a way that is committed to both the quality of the research and the integrity of the participants. The connection between researcher and participant yields increased self-disclosure from participants and increased understanding of the context on the part of the researcher.

Some of the alternatives for minimizing the problems associated with going native include (a) maintaining distance between researchers and the people studied, (b) setting up feedback mechanisms or asking people to read what researchers write, (c) setting up a structure for communication between researchers and participants, and (d) setting up regular meetings with participants. More important, determining the researcher's stance in advance of carrying out the research helps to guide decisions as ethical dilemmas arise.

Critical Summary

Going native is a experiential field work method that takes the notion of "participant observation" beyond its limits by encouraging researchers to cross the dividing line of objectivity, the line between scientists and communities. The expression *going native* is a representation of a colonial imaginary, for it represents a commitment to living and seeing the social world from the viewpoint of native peoples. In social research, to go native is to loose commitment to scientific truth, detachment, and rationality.

Isabel Altamirano-Jimenez

See also Case Study Research in Anthropology; Ethnography; Interpretivism; Objectivity; Participant Observation; Subjectivism

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GOVERNMENTALITY

Governmentality (gouvernementalité) is a notion that was introduced by French philosopher Michel Foucault in the 1970s and was later elaborated upon by a number of social theorists, especially in the English-speaking academic world. Governmentality studies examine the art of governing populations and directing human behavior at a distance, which typically also involves the self-government of people. Governmentality perspectives are applicable through case studies across a wide range of social and behavioral sciences, including education, management, political science, public administration, and the human services.

Conceptual Overview and Discussion

Understanding governmentality requires understanding Foucault's critique of conventional conceptions of power. Inhisalternative conceptualization, power is dispersed in society, related to knowledge, and productive rather than repressive. This means that government is understood to rely at least partly on the production of "truths" about different activities and institutions in society, and that these truths give people subject positions to inhabit, in ways that ideally are productive for themselves and society.

What the term *governmentality* refers to can be interpreted as a combination of *government* and, alternatively, *mentality* or *rationality*. Both interpretations are valid, as governmentality should be understood as a certain mentality of government that is guided by specific rationalities rather than explicit ideologies. A governmentality perspective in turn focuses on how certain governmental rationalities are mobilized in order to enable the regulation of people's conducts. It typically aims to understand and describe the art of government deployed in contemporary societies in order to direct human behavior and manage populations at a distance. The reason that emphasis is put on populations relates to a biopolitical understanding

of the population as a sort of natural collectivity characterized by specific regularities and trends that government needs to create knowledge about in order to be at all able to govern.

Governmentality analyses have been applied mainly to the political rationality of liberalism, which can be understood as an art of governing rather than a doctrine. Liberalism differs from other governmental rationalities notably because it takes into account the need for people not to feel governed: It is meant to govern free people. Liberalism also introduces a distinction between state and society, explicitly aiming at the better good for the latter rather than the former. For its assessment of the societal better good, liberal governmental rationality mainly relies on political economy, which is considered the appropriate knowledge base for regulating the population as a whole. Liberal political programs are in turn informed by this type of knowledge, the views of experts who participate in its production, and the many indicators it produces, which makes reality intelligible in such a way that political action can be seen to influence it directly.

The liberal problematic of governing free people tends to be central in governmentality studies. In liberal societies, the technologies of domination, relying for instance on disciplinary power, cannot be exclusively relied upon. In order for free people to conduct themselves in ways that are desirable for society as a whole, these conducts also need to be personally desirable. For this purpose, appropriate technologies of the self, offering ways for people to fulfill themselves while being somehow productive for society, need to be provided with the subject positions that are made available. Under advanced liberal government, subjects ideally regulate themselves along the values associated with the positive notion of freedom, which means that they strive to be as enterprising and self-responsible as possible. In a society that relies on this type of ethical government of the self, organizations can also be governed at a distance through technologies involving standards of best practice and processes of benchmarking and accreditation.

Application

Governmentality analyses can be purely descriptive, but they can also be political with an explicit, critical agenda. Both types of approaches have been common within governmentality studies. In both cases, the attempt to understand the governmental rationalities and techniques should be central. This focus not only on rationalities but also on techniques means that governmentality studies tend to be more empirical than other poststructuralist approaches, examining power in its envisioned practical and technical expressions. However, the focus typically remains on how those who govern conceive and reconceive the object of their government and the subjects who are meant to be governed rather than on how the programs they design are in turn concretely implemented. The concrete implementation can complement the governmentality analysis, but it should not be the core of this analysis.

A governmentality study invites questions about the governed—who are also self-governing—and questions about those who seek to govern. In his influential discussion of governmentality, Mitchell Dean proposes a framework involving four aspects to describe what the analysis of the governed/selfgoverning subjects can focus upon: ontology, ascetics, deontology, and teleology. Ontology refers to what field or substance is meant to be governed; for instance health issues. Ascetics refers to how the substance is to be governed; for instance, through prevention programs attempting to responsibilize people about their fitness and encouraging them to go to the gym. Deontology refers to who the subject becomes when governed; for instance, self-responsible, healthy subjects who benefits from their fitness in all aspects of their life and experience their exercising practice as fulfilling. Teleology refers to why it is important that this substance should be governed, mainly from the viewpoint of society; for instance, the savings in healthcare expenses and the activation of potentially productive healthy people. Nikolas Rose, Pat O'Malley, and Mariana Valverde complement these questions about the governed with questions about those who govern: It is also important to examine who is governing what, according to what underlying rationality, with what techniques, and for which purposes. In their view, a governmentality study should aim empirically to find precise answers to all these questions about both the governed and the governing.

Governmentality lenses have been used in many disciplines and to analyze many different types of

issues in many different types of settings. Some of the most influential studies have dealt with the government of economic life at different levels. The governmentality perspective makes it possible, for instance, to look at how certain political economic discourses and programs at a national or even a global level are translated in very localized workplaces. Some of these studies have focused on how technologies of performance relying on indicators and encouraging employees to conform to best practices are made more efficient through the use of confessional technologies like development discussions. This type of analysis is not limited to profitmaking organizations, as an economic governmental rationality has reached all aspects of government under advanced liberalism. Making public services more effective, productive, and efficient, for instance, is a priority of new public management. A governmentality approach may help understand this process, as it involves an activation of users reframed as customers and invited to engage in selfservice customization, a prevention calling for selfresponsibility in health-related matters, and a responsibilization of people for other risks, whether individual—relating to something like unemployment or poverty—or collective—relating to, for instance, the environment or security/crime. Rather than at the level of the state and formal government, it may be most interesting to analyze governmentality in mundane activities in everyday work and life: The perspective can inform studies engaged in virtually any social setting within a liberal society, where many attempt to conduct the conducts of others, in addition to their own.

Critical Summary

Governmentality can be particularly well suited as an analytical perspective in a case study of virtually any organization, as the processes of governing others' conducts and self-governing are observable everywhere in today's liberal societies. In addition, a governmentality approach can potentially be useful within most social and behavioral sciences, as it helps to understand human behavior in society, as governed by others, and self-governing, according to certain rationalities. One pitfall for researchers to avoid, however, is a too systematic understanding of power only in terms of governmentality, as sovereign power and

disciplinary power have not disappeared altogether with the advent of liberal government. It is important for researchers to remember that advanced liberal rule is also dependent on its dark side relying on less benevolent forms of power.

Martin Fougère

See also Discourse Analysis; Genealogy; Poststructuralism; Subjectivism

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GROUNDED THEORY

Grounded theory (GT) is an approach to research offering a systematically applied set of methods to generate a substantive theory. The GT approach can be applied to theory building in the social sciences, and is considered especially relevant to the study of any social phenomenon that is processual in nature. The theory evolved from the idea that theoretical concepts should be grounded in the intersubjective reality of the social world, which is experienced by the researcher with a directed research aim. Substantive theory is primarily based on the data themselves, and the data collection and analysis are essentially linked. Barney Glaser and Anselm Strauss developed this methodology for generating theory when little is

already known, and for providing fresh insight into existing knowledge. According to the later contribution of Anselm Strauss and Juliet Corbin, GT results in a set of relationships that offer a plausible explanation of the phenomenon under study. It links diverse facts in a coherent, useful, and pragmatic way. At the same time, it also has the capacity to reveal the unrecognized or the unknown.

Philosophical Roots and Sociological Context

GT methodology falls within the tradition of qualitative research. Karen Locke has shown that qualitative researchers adhering to the modernist and interpretative schools have successfully used the approach. Within the qualitative research tradition, the interest of modernists is in establishing how the world might be predicted and controlled, while the interpretivists focus on the subjective reality experienced by social actors. The latter are concerned with lived experiences and seek varying accounts of those experiences, in contrast to the positivist approach, the aim of which is to seek out underlying variables and causal factors of phenomena. GT has intellectual connections to pragmatism and symbolic interactionism, both of which are considered to belong to the interpretivist school. Pragmatists, in general, implicitly assume that models are built from parts of other models and empirical data on the basis of trial and error complemented with some heuristics and intuition. Symbolic interactionism is both a theory of human behavior and an approach to inquiry about human conduct and group behavior. It tackles issues related to the individual in society, but is not concerned with the shape of society. Nevertheless, it recognizes its holistic nature, emphasizes the mutual causation between individuals and their environments, and acknowledges the evolutionary nature of social change. All this highlights the importance of studying the process of change, and the idea that inquiry is always context-bound and that facts should be viewed as both theory- and value laden.

The argument put forward by Glaser and Strauss about the nature, purpose, and possible development of a theory arose from these approaches. However, the GT approach is distinguishable among the interpretivist methodologies

in the sources of data used and in the use of literature to inform and locate the developed theory. In contrast to pragmatism, GT is explicit on the iterative use of the inductive and deductive modes of reasoning.

GT is based on the acceptance of the complexity of social life. In its true sense, it emphasizes context and the social construction of realities. It promotes the notion that the building of realities is an ongoing process of negotiation, reevaluation, and refinement of and between individuals. Consequently, the attributes of the researcher and his or her effects on the phenomenon under study and on the presentation of the findings are considered highly relevant.

Discussion and Application

Grounded theory is a bottom-up approach in that the results are derived from the study of the phenomenon it represents. It supports the discovery of phenomenon-specific theories and subsequent comparison with other theories. It is discovered, developed, and provisionally verified through systematic data collection and analysis. The work of Glaser and Strauss put specific emphasis on the fact that the connection with empirical reality may help in overcoming the limits of pure conceptualization, thus improving the theory. GT emphasizes induction, deduction, and verification as integral parts of inquiry, and it accepts the duality between deductive (i.e., generalization from a priori conceptualizations) and inductive (i.e., inference of particular facts or observational evidence to general principles) reasoning logic.

In terms of capturing the complexity of social life and the change processes inherent in it, qualitative data may fit the purposes of theory development better than quantitative data. However, GT allows the researcher to use multiple data sources. He or she may apply both qualitative and quantitative evidence and consider real-time and historical data simultaneously. Additional data collection is also allowed whenever the emerging conceptualization calls for it. Essential to this kind of data collection is theoretical sampling, which focuses on the data that may fit the conceptual categories. The aim in the sample selection is either to maximize the similarities that the replication logic dictates in order to increase internal validity, or to

maximize the differences in line with the scope of the theory to enable theoretical coverage. Thus, data collection in this approach aims at generating a sufficiently large number of comparable "incidents" with rich descriptions to enable in-depth comparison, based on which theory can be built.

The analysis comprises the systematic comparison of small units of data (i.e., concepts). It involves the gradual construction of a system of concepts that describes and explains the phenomenon under investigation. The levels of analysis are crucial in arriving at more refined integration of abstract concepts that cover behavioral variation. The concepts on the lower abstraction level define those on the higher level. The data analysis is driven by the emergent theory, in which the key mechanism applied is coding. Coding refers to reducing or breaking down the data, conceptualizing it, and putting it back together in new ways. Category in this instance refers to a code for a concept, its properties refer to its causal conditions and consequences, and the dimensions refer to a range of values that can be attributed to it. Data reduction, which Strauss and Corbin term open coding, is the task of selecting, focusing, and simplifying the data. Axial coding, according to the same authors, is about making connections among categories as well as between each category and its subcategories. In so doing, the researcher needs to identify properties and dimensions for each category and subcategory, and to build links between them. Selective coding is the part of the analysis process in which the data are put back together as the emergent theory guides a new and refined integration of the abstract concepts. Data displays and theoretical memos help to entice the researcher away from the data toward abstract thinking. Data displays include tables, matrices, and diagrams, which are helpful tools in the search for patterns. Theoretical memos assist the iterative process between further data collection, data analysis, and theory development.

The GT method calls for early data collection, but this does not mean that it is atheoretical, or purely inductive. Overemphasis on induction would downplay the role of theoretical sensitivity. Yet, the researcher who applies the GT approach has to take care to avoid early internalization of the perspectives and hypotheses of scholars in the immediate field of study.

The principle is that the developing theory should direct the researcher to the literature that best informs, explains, and contextualizes the findings. Grounded theory uses knowledge and theory as informants in the investigation. It involves questioning the data in order to create links with established theory, and therefore requires an understanding of a broad range of established theories and empirical works. Theorizing is the process of constructing alternative explanations until the best fit is achieved between data and explanation. The ultimate challenge is to integrate emergent analytic thinking, and in order to do that the researcher may need to search more broadly in the diverse field of the sciences.

As the emergent framework is based on the constant comparison of various units of data, the methodology offers ways of distinguishing adequate from inadequate knowledge. As long as adequacy improves, the research activity accelerates and becomes more focused. This very focus imposes more self-validating constraints on the research, thereby proving the adequacy of the explanation. Validity is the extent to which a piece of research gives the correct answer. More precisely, internal validity means that the findings make sense and answer the research questions. External validity is the degree to which the findings can be generalized or transferred to other settings. Even at the sample-selection stage the goal is to generalize phenomena to theoretical propositions rather than to populations. Generalization within the GT approach is thus analytic, or theory connected, as the theoretical sampling is focused on filling conceptual categories.

Given the varied social construction of knowledge, the researcher has to describe the context in question accurately and the techniques he or she used, so that subsequent follow-up studies may match them as closely as possible. The more detailed the description, the more it allows the researcher to explain and understand it if applied to a similar phenomenon. In this sense, research taking the GT approach can claim reliability.

Grounded-theory application is evaluated in terms of how the result, that is, the theoretical output, fits the world out there, which is socially constructed and consists of individuals' interpretations. How does the theoretical framework span a range of contexts? If necessary, does it offer modification

possibilities? Is the new framework with its incorporated concepts relevant to the people concerned? The degree of fit with antecedent literature is also an important consideration. Whatever part of the generated theory does not fit or support the existing literature has to be explained in terms of substantive differences. This way the methodology promotes internal coherence and completeness.

Glaser and Strauss first developed GT methodology specifically for sociology. It was promoted to develop sociological explanations of the variability in social interaction. Over the decades it has diffused into other disciplines. One frequently used application in various disciplines is in case-based theory building, with single or multiple cases. Karen Locke, Kathleen Eisenhardt, and Melissa Graebner give examples of successful applications. Andrew Pettigrew reflected on conducting processual research in the context of management and organizations. In realizing the task of interpretation, he found GT specifically useful. One reason for this is because, once the case narrative has been written and the current strategic concerns listed, there needs to be an explicit attempt to interpret the narrative and also to link emerging conceptual and theoretical ideas, both to analytical themes within the case and to wider theoretical debate in the literature.

Critical Summary

With a view to discussing the strengths and weaknesses of GT methodology, both the researcher and the audience should understand what may and may not be achieved through its application. What use are the results, and when is the resulting theory not suitable? What GT can provide is a way of thinking about a phenomenon in that it reveals a complex relationship between the relevant concepts. These relationships are embedded in the particular context, which sets out sociostructural conditions that support interactions, their consequences, and how they change over time. Such an investigation may have radical implications; however, it may not offer direct solutions to individuals. It is not predictive of the treatment of individual cases, and it is provisional in light of the fluidity of the social phenomena under investigation.

Diffusion from sociology to other disciplines has created some confusion about the meaning of grounded theory—building. The precise meaning stems from the original focus on the interpretation of meaning by social actors. Further, it refers to the elaborate process of data collection and theory discovery through the hierarchical structuring of categories in which theoretical sampling and constant comparison are central. Some scholars, however, adhere to a broader view. They use the term simply in the context of creating theory by observing patterns within systematically collected empirical data, the theoretical sampling of cases, and/or iteration between the theory in progress and the data. Perhaps the best way of coping with these multiple meanings is to use the term only when the researcher actually uses the original approaches.

Successful conclusions can be achieved if methodological implications are addressed to the actual study, to the purpose and the assumptions according to which the data were collected. The researcher has to give references regarding the version of the GT procedure he or she has applied in order to avoid confusion over terminology and procedures. As a later user of GT methods, he or she should be familiar with the seminal works of the originators Glaser and Strauss, Strauss and Corbin, and Glaser. This should help to avoid generation erosion, which would happen if the constant-comparative method were inappropriately implemented or the research process evaluated against nonappropriate standards. Problems with GT methodology arise when the research does not utilize the full method (i.e., methodological muddling) or has not progressed enough to pass the descriptive stage of analysis. Full and reflexive interrogation of the data is needed in order to allow the theory to emerge and to avoid premature closure.

In his later works, Glaser himself criticized the application of strict coding and the highly procedural version created by Strauss and Corbin. In Glaser's view, the codes could be simply forced on the data, whereas the original idea behind GT was to seek to explain variability by identifying the basic social processes.

In sum, the researcher using GT methods may be able to develop theories of complex real-life processual phenomena. The approach offers tools for making a theoretical contribution during the data-analysis stage. It helps the researcher to utilize the breadth and depth of the data, and hence to incorporate the variety and range of variables. Identifying the basic social process may be the key to pulling a theoretical framework together; in other words, to integrating the environmental, strategic, and operational aspects of complex social processes.

Zsuzsanna Vincze

See also Constructivism; Inductivism; Interpretivism; Multiple-Case Designs; Processual Case Research; Single-Case Designs

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HEALTHCARE PRACTICE GUIDELINES

Healthcare practice guidelines, also referred to as clinical practice guidelines, are intended to help standardize treatment decisions and patient care. These guidelines are used throughout the Western world and intended to serve as algorithms for healthcare providers to use in evaluating patients, determining treatment options, and providing care. The clinical practice guidelines are developed based on clinical research, data gathering, and objective analyses. Healthcare providers worldwide are encouraged to use the thousands of different guidelines to promote a more consistent approach to patient care and decision making. Case studies are frequently used to assess the implementation and effectiveness of healthcare practice guidelines.

Conceptual Overview and Discussion

Historically, in the Western world, healthcare practice was an individual skill learned at an accredited school of medicine, nursing, etcetera. Providers were educated, examined, and licensed and then expected to apply their knowledge and skills independently to the assessment and treatment of patients' illnesses or injuries. However, in an effort to codify and normalize the treatment and decision-making process, healthcare practice guidelines began to be developed in the latter half of the 20th century.

The concept for creating clinical practice guidelines derives from the need to disseminate the latest clinical information to healthcare providers and improve the quality of care by:

- Standardizing treatment decisions
- Delivering the best outcomes possible
- Maximizing patient safety
- Enhancing cost effectiveness

To accomplish these goals, healthcare practice guidelines rely on analyses of published case studies and other data as the sources for evidencebased medicine. The theory of evidence-based medicine was first postulated by researchers from McMaster's University in the early 1990s. Evidencebased medicine evolved from an effort to refocus clinical decision making and treatment from a subjective undertaking by individual providers to a standardized practice based on published research, clinical data, and technological advances. By utilizing a combination of widely accepted experiential and clinical research evidence related to diseases, injuries, and treatments, healthcare practice guidelines were developed for a wide variety of diagnoses and conditions.

Over the past three decades the creation of healthcare practice guidelines has exploded. According to the U.S. Agency for Healthcare Research and Quality (AHRQ) Web site, in 2008 there were more than 2,300 different healthcare practice guidelines. These guidelines describe the

diagnosis, treatment, and care for patients with diseases ranging from hypertension to malignant bone cancer and from chest trauma to acute cardiovascular accidents. However, the complexity and diversity of the vast number of guidelines being developed throughout the world does not mitigate the fact that critics remain concerned that the proliferation of guidelines will standardize health practices to such an extent that the quality of care will suffer. In addition, while research has shown that use of healthcare practice guidelines does effectively change some providers' behaviors, decision making, and outcomes—many providers do not adhere to them.

The rejection of healthcare practice guidelines has been explained by George Weisz and others as a reaction to the perception that guidelines resulted from politicians' and administrators' desire to control economic rather than healthcare issues. Furthermore, many providers have argued that the use of healthcare practice guidelines reduces their professional autonomy. However, it has also been postulated that the increasing emphasis on clinical practice guidelines results from the sociological imposition of outside forces, by nonproviders, on healthcare decision making and practice. With these varied concerns impacting acceptance and utilization of healthcare practice guidelines, researchers have suggested using theoretical frameworks to enhance provider adoption.

Using the theory of planned behavior is one approach that has been suggested for increasing the acceptance of healthcare practice guidelines. Behavioral change theory provides a mechanism for guideline developers to identify and assess the issues related to behavior change and guideline adoption, as well as methods for evaluation and implementation. Behavioral change theory has the potential to enhance the implementation and acceptance of healthcare practice guidelines by organizing the various components and incorporating evidence-based medicine evaluations of the guidelines.

Application

Clinical practice guidelines can be used in countless healthcare settings to provide patients with a standardized level of care based on the latest information from published studies and objective analysis. Similarly, assessments of healthcare practice guidelines provide an ideal opportunity for case study research. From a single case study exploring provider behaviors, decision making, and treatment practices, to comparative case studies examining multiple instances of implemented guidelines and their outcomes, case studies afford researchers an applied approach to assessing guideline development, utilization, and effectiveness.

An example of how a case study approach can be used to inform the development of healthcare practice guidelines can be illustrated vis-à-vis a cancer pain management study. The researchers relied on case studies of cancer patients' pain management to assess the providers' clinical decision making and treatment plans. These case studies included individual interviews with patients, their healthcare providers, and caregivers regarding the patients' pain management and quality of life. The data from the interviews were used in multidisciplinary focus groups of healthcare providers and administrators to evaluate and refine the current pain management policy. Based on the evidence from the case studies, the focus groups developed and disseminated more holistic clinical guidelines for cancer patients' pain control.

Critical Summary

Healthcare practice guidelines have been used to minimize the variability between providers in the treatment, decision making, and care related to numerous diseases and conditions. This effort toward standardizing healthcare practice relies on case studies, clinical trial research, and publications as the sources for the evidence-based medicine that underlies the development of clinical practice guidelines. Further, with technology and computers, providers have nearly instant access to all types of healthcare practice guidelines and treatment options. However, the drive toward standardization prompted providers' concerns that guidelines were being developed to control and regulate their behaviors for economic- and administrative-, not healthcare-related reasons. Case studies can be used to evaluate the providers' behaviors as well as the outcomes related to use of healthcare practice guidelines.

Michael P. Pagano

See also Comparative Case Study; Sensemaking; Validity

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HERMENEUTICS

The task of the hermeneutist is to engage in the interpretation of texts informed by the epistemological insights of hermeneutic philosophy. These insights encourage reading between the lines or ascertaining the subtext of the text. This particular method is useful for case study research if the researcher is investigating any sort of textual documents for a deeper understanding into human behavior, actions, organizational culture, and communication.

Conceptual Overview and Discussion

The classical Greek word *hermeneus* means "interpreter" or "expounder." Hermeneutics is about interpretation or even translation; it is about clarification—making the obscure less obscure. The hermeneutical tradition started in biblical studies and philology in order to decipher the authentic meanings of biblical texts. Since the 19th century it has been embraced by the humanities and more recently the social sciences, particularly in the interpretive sociological tradition in which the quest for causal explanation and prediction is replaced with the quest for understanding human actions *(verstehen)*. What is of interest is how the

text speaks through the person rather than finding an objective scientific reality behind the text.

The term *text* refers more broadly to all kinds of written documents. Texts are generally finished texts intended for communication outside the original situation. They have endured physically, been witnessed, and can be studied when the originators are no longer present. Examples include electronic mail, financial statements, agendas and meeting minutes, advertisements, official policy letters, articles, films, and transcribed interviews. Contemporary philosophers (e.g., Michel Foucault) extend the meaning of text to what is visual or action oriented—the text of the body itself.

Hermeneutic philosophers have set out to answer more than the question of what constitutes a text from which understanding (*verstehen*) can be sought. They have also asked: Through what process can it best be understood? What constitutes authentic textual interpretation?

Friedrich Schleiermacher, known as the father of modern hermeneutics, calls attention to the necessary art form of doing hermeneutics in that the reader of a text must be as much an artist as its author was. The anxiety to be understood (the text along with the author) and the anxiety to understand (the interpreter) are meaningfully negotiated when the hermeneutist is disciplined and artistically sound. For this negotiation to come about authentically, hermeneutists must arrive at their interpretation though attending to the psychological and grammatical dimensions of textual reading. The former pertains to the interplay between reader and text with the understanding that texts are the product of the author's historical location and social positioning. If this is not taken into account, misunderstanding between the text and interpreter can result. The latter dimension is concerned with careful examination of linguistic and syntactical structures of the textual language.

Wilhelm Dilthey adds that in addition to the author's mind-set, one must take into account his or her broader cultural milieu. Second, he names the text as not only more than a piece of writing, but a cultural artifact. Dilthey coined "the hermeneutic circle," which refers to the principle that the "part" (e.g., the text or pieces of the text) can be understood only with reference to the "whole" (e.g., the whole text and/or the cultural context) and vice versa. The meaning resides in this circular

understanding where the goal is to capture the *spirit* rather than the *letter*. The "part" and the "whole" are not exclusive but interpenetrate one another. The interpretation of meaning ends when the hermeneutist reaches good "*Gestalt*" or an inner unity free of logical contradictions.

While Dilthey and Schleiermacher attend to the relationship between the author (and his or her social-historical-cultural location) and text, Martin Heidegger and Hans-Georg Gadamer shift attention to the relationship between text and interpreter. Heidegger calls for consideration of the "forestructures of understanding" that denote the presuppositions, ideologies, and existing familiarities with other texts with which the hermeneutist approaches the text. These must be acknowledged and brought into the dialectical relationship between hermeneutist and text, not quelled in the false quest for objectivity. Gadamer identifies these as productive and nonproductive prejudices. Nonproductive prejudices refer to those that hinder authentic verstehen; the productive prejudices that foster understanding should be cultivated in the dialectical relationship.

Critics of Gadamer's approach argue that his non-productive prejudices are aligned with a hermeneutics of suspicion, while the productive are aligned with a hermeneutics of (blind) faith. A hermeneutics of suspicion refers to the method of interpreting texts cautiously, aware that the surface-level meaning of a text may be an effort to conceal the political interests that benefit some at the expense of others. The task of the hermeneutist of suspicion is to strip off the mask, exposing those interests. Jürgen Habermas and Paul Ricoeur, both critical hermeneutists, argue that the hermeneutics of suspicion is a positive force in arriving at authentic meanings of texts.

Habermas, the father of critical hermeneutics, asserts that texts are derived from social relations of power and domination, and these oppressive aspects are concealed in texts. He calls for a process-oriented critique of the text's ideologies (*Ideologiekritik*). Another critical hermeneutical position holds that hermeneutists must be careful not to fall into the trap of "intentional fallacy." Questions of an author's intentionality have drawn attention to the reality that authors cannot always state their own personal intentions and desires, but may be impeded by sociopolitical forces and organizational cultures.

Ricoeur affirms the importance of applying a hermeneutic of suspicion to uncover class interests and conflicts, but affirms that this must be in conjunction with a hermeneutics of faith. A hermeneutics of faith calls for suspension of disbelief, in which the text becomes the world we inhabit, participating in upholding its claims on us. Following in the tradition of Habermas and Ricoeur, this entry now turns to one example of an application of critical hermeneutics in social science research.

Application

Nelson Phillips and John Brown used a critical hermeneutics methodology to investigate a case study that centered on an advertising campaign conducted by Syncrude Canada. Syncrude is a joint venture company composed of numerous energy companies, the federal government of Canada, and the provincial government of Alberta. The company exists to exploit the petroleum resources in the "oil sands" of northern Alberta.

The researchers used the case study to illustrate a five-step methodology of employing critical hermeneutics in organizational studies based on Ricoeur's and Thompson's work. Three magazine advertisements placed by Syncrude were analyzed both from a social-historical perspective and from a formal (structural/conventional) perspective. Then the two perspectives were negotiated through a dialectical process and synthesis in the moment of interpretation-reinterpretation to arrive at a final interpretation of the meaning of the textual ads.

The formal analysis consisted of Roland Barthes's threefold semiotic approach by which a text can be examined at three levels—denotation (literal meaning), connotation (that to which the literal meaning refers and signifies), and myth (how the text draws upon wider cultural myths). Via this process, the hermeneutists demonstrated how the Syncrude ads attempted to shape their corporate image by creating an interpretive frame, morphing the viewer's understanding of the organization by drawing on myths of supporting the future, the traditional family, social responsibility, aboriginal and other environmental sensitivities, and nationalism.

The social-historical analysis examined the producer, targeted audience, and intentionality of the

text through a consideration of the sociopolitical and economic climate. The hermeneutists drew on more than 300 newspaper and magazine articles over a period of 10 years to craft the social-historical background of the advertisements. Syncrude was found to be facing difficulties with uncompetitive production costs, limited cultural exposure, tensions from environmental activists, and a general diminishment of support from key government and private stakeholders.

During the moment of interpretation-reinterpretation, the hermeneutists considered alternative meanings and interpretations of the texts presented by Syncrude in an attempt to disrupt the corporation's political framing rooted in the previously mentioned myths. They examine the asymmetrical power relations among the various stakeholders with an interest in the company, its activities and how both are perceived, whose voices were unable to contribute to the shaping of the organization's image, and what information was left out. Their hermeneutically derived findings suggest that the meaning behind the advertisements reveals an attempt to present the company as fiscally, socially, and environmentally responsible in order to secure government and public backing that the organizational establishment desires in order to prevent future scrutiny and roadblocks from environmental, legal, and government agencies.

Critical Summary

Although the above application focused on critical hermeneutics, the hermeneutic tradition is much broader and richer. Yet the foundation of all hermeneutics relies in the relationship between the interpreter and the text. It is relational, rather than schismatic and objective. The hermeneutist attends to the text, the text attends to the hermeneutist in a metaphorical sense, and both allow their own prejudices, presuppositions, cultural inheritances, and social locations to enter into an unapologetic, reflexive dialectical relationship in order to arrive at meaningful understanding.

Angela Hope and Jason S. LeCoure

See also Author Intentionality; Communicative Action; Contextualization; Critical Discourse Analysis; Intepretivism; Verstehen

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HIGH-QUALITY ANALYSIS

High-quality analysis refers to both the robust ways in which the data were examined and the style and method of presentation of the analyses. Analysis occurs throughout the case study, both at the site through systematic documentation in field notes and protocols, and after field work is completed through methodical interrogation of the data. High-quality analysis is both an ethical and a technical issue. Ethically, it involves ensuring transparency in data analysis procedures and decision making. Technically, high-quality analysis involves explicit unveiling of the systematic ways the data were examined and the rationale for proceeding in such ways. Central to high-quality analysis is identification of the theoretical orientation of the researcher and coherence with research theories and the research questions. High-quality analysis is challenging because it requires a simplification of data to aid understanding without obfuscating complex relationships.

Conceptual Overview and Discussion

Analysis is a systematic search for meaning that proceeds inductively (from the specific to the general) so that general statements about the phenomenon

can be made. Analysis is considered to be high quality when the researcher has explicitly documented both the processes for analyzing the data and the justification for proceeding in such a way. The method of analysis in case study research depends upon the content, question, methods, situation, scope, and theoretical orientation of the case.

Arguably, high-quality analysis begins at the earliest stages of research, at which time critical design decisions are made related to the framework and the unit of analysis to be used. Data analysis that occurs during the earliest days of collection serves to inform the researcher about shifts that may need to occur in the protocols. Analysis of researcher field notes helps the researcher to capture emerging understandings and insights while they are still fresh. Of course, the bulk of the data analysis happens once the work is completed at the field site.

Yvonna Lincoln and Egon Guba purport that trustworthiness is the most critical aspect in evaluating the quality of a research study. Trustworthiness involves establishing credibility (confidence in the "truth" of the findings). Three techniques for establishing credibility are triangulation, member checking, and negative case analysis (i.e., including a search for rival explanations).

The best technique for establishing credibility is a thick description, which provides an accurate view from which to discern points of significance and critical insights. Triangulation means that three different sources of data have been referenced to support the finding. Member checking (e.g., having participants read and make commentary on their own interviews) provides repeat opportunities for participants to say and show what they mean. Negative case analysis is the process of rewriting or reimagining the hypothesis as more information is made available.

Dependability (that the findings are consistent and could be repeated) is another method of assessing the quality of case study research. It is best established through an inquiry audit. An inquiry audit is the systematic process of checking the analysis for procedural and organizational quality using criteria and an audit trail. A well-organized audit trail aids peer reviewers in evaluating the quality of the analysis by breaking down the data by class, type, and source. Audit trails

permit confirmability (the extent to which the findings represent the study participants' perspectives). Robust analytical frameworks are transparent and coherent, enabling readers to make informed critical judgments about the quality of the work.

Application

Jon Ritchie and Lyn Spencer offer an informative example of a process for conducting high-quality analysis. In the first stage, the researcher conducts a survey of the literature and becomes aware of what is known about the phenomenon and of the language used to discuss the problem. The researcher might also become aware of the types of materials used to collect data and the breadth of data that he or she has personally collected. In the second phase, the researcher develops a tentative thematic framework for the research question. This involves creating a system of markers or indicators. The next step is to index all of the materials, applying the framework to the analysis of the data. After this, the researcher makes decisions about how to display the data in a way that makes sense. The data are taken out of context and put into an order that corresponds with the themes. Finally, the researcher makes explicit the emerging dynamics of the phenomena, providing an interpretation of the data and showing relationships between parts and wholes. Note that this description about data analysis may give the false impression that it is purely a systematic process. While a systematic approach is critical, the process is iterative and requires researcher discernment, which is subtle but intentional effort at demonstrating perceptiveness, awareness, and insight in dealing with the data set.

Critical Summary

High-quality analysis is the backbone of substantive case study research. The researcher's integrity, knowledge, and skill infuse the analytical approach with rigor. Transparent, systematic procedures for analysis enhance the likelihood of an audit trail that bears up under peer scrutiny. Such high-quality analysis respects the central purpose of case study work, which is to help us notice and understand particular aspects of the human experience that are

often overlooked or unexamined by other types of research. Access to such nuances in human understanding is made possible through the researcher's methodical interrogation of data and multiple approaches to calling into question emerging hypotheses before arriving at general, compelling statements about the phenomenon. Finally, the writing skills of the case study researcher are paramount for the clear communication of the research outcomes, making them accessible to both a critical and interested audience.

Ruthanne Tobin

See also Case Selection; Ethics; Rival Explanations

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HISTORICAL MATERIALISM

Associated specifically with the analytical approach of Karl Marx and the intellectual tradition developing from his work, historical materialism is a method of identifying and organizing data that emphasizes the priority of socioeconomic factors as the locus of causal significance. More recently, this has been associated with what has been called the "political economy" approach in the social sciences. Directing its attention to the economic framework of society, historical materialism identifies a "class structure" produced and perpetuated by the specifics of the prevailing "mode of production." It concentrates upon the way in which society is dominated by the ruling class that owns and/or controls the economic resources, and the way in which its domination "exploits" other classes and produces "class conflict" and even "class war."

Conceptual Overview and Discussion

Historical materialism should not be confused with "dialectical materialism," which was developed after Marx's death by his closest collaborator, Frederick Engels, and became the official doctrine and ideology of the Soviet Union (1917–1991). This was developed as an all-encompassing theory of the entirety of human knowledge, of its structure and development. By contrast, what we call historical materialism (a term not used by Marx himself) is an analytical approach to human situations (from the most individual to the most global) in the specific conditions of different times and places.

The term *materialist* refers to the assertion and directing view that the values and assumptions of the human actor are conditioned primarily by her or his experiences and actions (particular productive or economic behavior) in the specific environment produced by the mode of production prevalent at the time. "Historically," the mode of production has been dynamic, changing as a result of human activity. In conjunction, as human beings have changed their relationship with the physical environment (nature), they have changed themselves—how they live, how they are organized, and what they believe.

Arguing that the mode of production (the economic framework of any society) has always produced a dominant form of property, historical materialism asserts that the class that owns that property will be the ruling class in society and will control its politics and values or culture. Therefore, at any historical moment, in any specific historical circumstance, one can identify a dominant class.

In the modern period, following industrialization and urbanization, this theory identifies the owners of industrial (and, sometimes, "postindustrial") property by the means of production (i.e., industrial capital), normally referred to as the *bourgeoisie*, as the dominant class. This is also taken to include corporate capitalism and finance capitalism. The central bourgeois values are presented as the right to private property, the pursuit of profit and wealth as a valuable contribution to the development and well-being of society, the acceptance of inequality as inevitable (and even desirable)—all of which must be protected and promoted under the legal and political framework of the state. The operation of the "liberal democracies" as seen particularly in

Western Europe and North America is regarded as the quintessential form and character of bourgeois domination.

Aiming at an understanding of "developed" economic and social systems, this theory has always placed industrial capitalism at the center of its interest. Yet it can be used as an analytical framework for any economy, from cavemen to contemporary capitalism. Further, even in its 19th-century origins, this theory regarded capitalism as having become international or global. Consequently, analysis of local questions could (and should) be viewed in the larger context of capitalist domination and the integration of the economic forces of the entire planet. Those who would analyze a local situation should always keep the larger context in consideration.

In conjunction with the identification of a specific class rule, we also have the necessity of "class conflict" and/or "class war" as a corollary. This can be seen from two perspectives:

First, emphasizing the operation of any functioning system, one can identify the ruling class and the ruled or "exploited" class(es). When looking at industrialized societies, researchers have tended to follow Marx's guidelines. The main two classes to be identified are the bourgeois owners and those who survive by selling their labor for a wage (the working class or "proletariat"). Less important in "developed" systems (but very often of great importance in developing countries) are the small or "petty" bourgeoisie (who are constantly being reduced or "competed out of existence" by the big bourgeoisie), the peasants or small farmers (who are being eliminated from agribusiness), and the so-called *lumpenproletariat*—the latter being the dislocated mass of declassed persons who gather in and around modern cities as their means of subsistence are denuded by the concentration of economic resources into the hands of corporate capitalism. Each of these classes has its own interests, which often places them in conflict with each other. The principal "objective" conflict is between the two main classes—the proletariat and the bourgeoisie. However, an understanding or "consciousness" of the situation may not be generally clear to the members of each of these classes. Researchers will often use this approach to "reveal" unspoken evidence of class identity, exploitation, and conflict in the normative parts of their studies.

Second, class conflict is presented as a vehicle of political change. Developments in the means of production produce new classes and new class relations. The bourgeoisie, having gained economic and social influence with the development of capitalism, established political power—sometimes violently (as in the French Revolution of 1789), sometimes through taking control of the constitutional framework (as in the United States). Historical materialism often sees developments within this victorious capitalism as the harbinger of its defeat. As socialism, the theory sees the resolution of class conflict in the capture of a centralized and productive capitalism by a mobilized working class, and the administration of the economy for a "general" or "common" good.

Application

Historical materialism always identifies bourgeois property as inextricably bound up with the exploitation of members of the working class. Simply put, the wealth of social production is denied to the mass of society that actually does the producing. To see the use of the methodology in specific cases one could do worse than going to Marx's own writings, which are models of the approach. His studies of the revolutionary situation in France in 1848, of the rise of Louis Napoleon to become emperor of France in 1851, of the character of parliamentary legislation in England—and many more in his voluminous writings—all use this paradigm to identify the parameters of the projected analysis, to isolate and organize the data, and to analyze it with a coherent purpose and direction.

The approach can be used without difficulty to study small and large questions involving trade unions, labor strikes, crime and criminal populations, women in the workplace, and any circumstance involving human labor. Novelists have been drawn to its concerns—as John Steinbeck's writings make obvious (e.g., *The Grapes of Wrath*). Indeed, as an approach to understanding the human condition, it touches upon every aspect of human existence.

Critical Summary

A few words concerning the "bias" of the approach are worth noting. Its proponents often call themselves

"scientific socialists" because they deal with the facts of specific societies, and show how practical choices can be made by those who wish to reduce human exploitation and misery. Many would argue that this is not a "scientific approach" but an "ideological approach," the purpose of which is not to provide coherent knowledge, but to mobilize the reader into joining a struggle against bourgeois society. If by "scientific" we mean a "value free" description of the facts of a situation, and how they are causally related, this is true. By these standards, however, very few pieces of research could be called scientific. The selection of data and explanation of their significance always reflect preconceptions held by the researcher. It is perhaps better to have these "up front," as does the historical materialist, than to pretend that they do not exist. Further, those who claim to be avoiding prescriptive elements (i.e., preferences and recommendations) can be accused of being conservative supporters of the existing situation. Giving information to those in power, while "sitting on the fence," can only help maintain the continuing domination of existing elites.

However, in terms of its data selection and analytical concepts, historical materialism can be said to fail to identify variables and situations in which factors not salient to the approach are of primary and autonomous significance. These can be such factors as religion, gender, and ethnic identity—in fact, any group identity that demands consideration through its very existence and its own sense of value and importance. Other concepts and tools of analysis are called upon at this time. Nonetheless, historical materialism is an integral element in the scholarship of our times, used in part or in whole by Marxists and non-Marxists.

Frank Harrison

See also Author Intentionality; Consciousness Raising; Imperialism; Means of Production; Praxis

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HOLISTIC DESIGNS

Holistic case study designs build a research framework that draws from an array of stakeholders. The design, implementation, and analysis should facilitate a synergistic combination of various aspects or elements of the case study. Thus a holistic case study is composed of various components, and the challenge for the researcher is to create a credible synthesis of these elements of knowledge.

Conceptual Overview and Discussion

Case study research per se is holistic in that it must portray the broad context of the case in order for it to be meaningful. Context, however, is a definable term that, depending on the terms of reference for the case study, may take on markedly different parameters. Context can include the physical, social, cultural, symbolic, and psychological environments of the case study.

Holism is a theoretical construct that can be traced to William James's *Principles of Psychology* in the notion that an object of consciousness gains its meaning from its embeddedness in the context from which it emerges. This means that we come to understand things from their surroundings. Approximately a decade later, Edmund Husserl also articulated the idea that a phenomenon is meaningful only by understanding the web of interconnections from which it arises. The relation of figure to ground would later find its way into the Gestalt philosophers' lexicon, thus popularizing the holistic approach. Holism, then, is about understanding something as part of a larger or broader whole.

The principle of holism is to see the entire context for our understanding. Holism moves beyond an elementalistic notion of component parts that combine in a piecemeal way to create an entity. Rather, holism asserts that a broader approach is required to understand phenomena in their totality or situ where the whole is greater than the sum of its parts. Martin Heidegger, a student of Husserl's, advances the importance of our interpretations. Heidegger's point is that we make things meaningful by trying to understand their contexts. In the realm of case study approaches, holism is an interpretive standpoint of the researcher. Holism will be a function of what the case study's purpose is in the terms of reference. Therefore holism is about the interpreter's design for what the big picture is and what that entails.

Robert Stake defines three relevant variations on case studies: intrinsic, instrumental, and multiple case studies. Intrinsic case studies are studied for their own particular idiosyncrasy and ordinariness. They are studied for their own sake. Instrumental case studies are examined for their potential to enhance understanding of an issue or phenomenon. The case per se is less emphasized than the theoretical insight it might offer for a construct or concept. When several cases are selected to accomplish this instrumental goal, then the study falls into the genre of the multiple case study. The construct of holism takes on nuanced interpretation for each of these typologies.

Holism in case studies with an intrinsic frame of reference needs to consider the various environments that the case crosses. For example, if the case study is of an individual, then it might take a social ecological approach wherein the person is the focus but also the person's relationships with family, with other organizations, and with other institutions of culture. If it is of an organization, then it might look at all the other organizations with which the organization's staff interacts on a regular basis. Of course all of this is a judgment call that is based on a balance between holism and feasibility, which always includes resource constraints. In designing an intrinsic case study, the researcher or team of researchers may wish to start with an ideal holistic approach and then prioritize their work in terms of feasibility. If the case is meant to be intrinsically self-contained, then holism contributes to the overall coherence of the understanding that emerges from the triangulation of diverse perspectives on the particular case.

If the case study is meant to be instructive of other generalities and has an instrumental term of reference, the implications of holism are interpreted somewhat differently. If it is to be a single case study intended to generate theory, then the selection of the case itself must take on a holistic perspective. The research team must determine the extent to which a particular case can be representative of a broader set of cases. Of course they will have to provide a wealth of empirical material to describe the case adequately so that the audience for their project can also determine the representativeness and hence relevance of the project to their own interests or theory. Where the terms of reference include a multiple case study selection with an instrumental purpose, then the cases can be selected purposefully to expose the unique idiosyncrasies that emerge across different environments of similar cases.

Holistic design in the context of case study research means that the project strives to encompass all of a phenomenon. The design of the case methods must function along multiple planes of influence to see how interactions create, sustain, or impede knowledge of the Gestalt, the whole. The various bits of empirical materials that comprise the case cannot be interpreted without allowing for the synergy of the whole. The case is a confluence of sustaining interactions that create the particular phenomenon. This is the challenge of holism to case study research: To understand the entity that emerges from interactive processes among diverse planes of influence.

Communicating about these holistic designs is challenging. The research team needs to acknowledge that its understanding will of necessity be tentative and partial. There can be no certitude that a truth has been established, only alternative interpretations. The value here is that the research team can articulate that not all interpretations will carry equal currency. It can transparently illustrate how their interpretation emerged and why it is worthy of the audience's attention.

Application

Dina Berkeley and Duncan Ross report on their particularly well-designed holistic case study, which also provides insight into the challenges of integrating conflicting perspectives. Their task was to evaluate the process of establishing an integrated approach to

sexual health for young people in East Yorkshire, England. Working with a broad range of stakeholders trying to implement a sexual health strategy, their research illuminated how various professionals and organizations coalesce and clash in their attempts to integrate services and approaches. Their in-depth case study describes the complexity of factors that affect young people's sexual health and the genesis of an integrated approach with sex education and service provision as a strategy for removing barriers. Their project proceeded from a broad scope of understanding the personal and societal issues affecting their project through to a detailed plan for tapping into the various layers of influence, including cultural, socioeconomic, and service organization levels. Their empirical materials were generated on successive iterations into the field, followed up by analyses and further exploratory "mini-case study" excursions. Their work was designed with the big picture as well as the minute details kept in focus. As such, their project reveals the processes that entrench dogmatism and those that create innovation in the field of youth sexual health and serves as an interesting template for others seeking to accomplish similar goals.

Critical Summary

Holistic designs require considerable advance planning and ongoing field monitoring to ensure they are yielding the quality of empirical materials that are necessary to encapsulate as much of the phenomenon as possible. The case will never be complete. It will only be as complete as possible. The limitations of the materials should be made explicit to readers. Also, the interpretive credentials of the researcher or research team should be made explicit to the readers of the case study so that an informed judgment can be made of the comprehensiveness of the case study. Regardless of how meticulously a case study is produced for communication, it will serve as our best portraval at this socio-historic time and location. Humility and transparency in presentation is key to a design that aims for holism as an ideal that can never be achieved, only sought after.

Colleen MacQuarrie

See also Authenticity; Autoethnography; Chicago School; Complexity; Contextualization; Critical Realism; Subjectivism

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Hybridity

Hybridity is a term used to refer to a person's ethnic identity. It is a blended or combined category, usually of two national or racial identities, as in Indo-Canadian. The hybrid term recognizes the current citizenship of the person and another ethnic identity. Usually the identity blend has emerged from a critical mass of people who hold shared histories. In the example Indo-Canadian, the hybrid term names Canadians who trace their origins to the Indian subcontinent. Hybrid identity terms label differences and similarities among people. It is part of the language of critical race theory that seeks to fracture holistic notions of identity while also sustaining complexity in identities. It also creates and sustains connections between people by recognizing affiliations among diverse cultural identities. Case study research can be used to investigate the social construction of ethnic identities and issues of hybridity.

Conceptual Overview and Discussion

Critical race theory emerged from the participation of scholars of color within the academy and their pioneering approach to understanding their privilege and oppression relative to white privilege and the dominant culture. Most impressively, the

foundations have been traced to W. E. B. DuBois' work on double consciousness at the turn of the past century. Double consciousness was the articulation of how African Americans because of their historic oppression through racism held the understanding of not only the dominant culture but also their own cultural insight, which afforded them an alternative level of analysis and insight. DuBois' analysis and writings informed the work of the Frankfurt School, which would go on to establish critical theories as a tour de force in ethical scholarship. The uptake of critical theories was embraced by scholars seeking to create ethical epistemologies within the academy. While critical race theory was pioneered to interrogate racism, it is effectively used by scholars to critique a broad spectrum of xenophobic cultural oppressions, including sexism, heterosexism, ableism, and more. Critical theorists illustrate how the intersection of race, class, and gender has material effects in people's lives.

Hybrid terms can highlight the subject position of people who are identified with blended categorizations. A concentrated focus on hybridity as the research question has been conceptualized as borderland work. As our cultures become increasingly globalized and shift from multiculturalism toward polyculturalism, hybridity takes on greater importance. Understanding how people who exist within and between different identities negotiate various aspects of their lives is the context for borderland work. In the earliest work on hybridity, it was assumed that a unitary consciousness was the sought-after goal. As more scholars reflected on the lived consciousness of hybridity, the inherent problems with this assumption were illuminated. In this postmodern turn, hybridity is not a dualistic simplistic construction of binaries but rather is conceptualized as shifting and fluid depending on various contexts. Postmodern definitions challenge any unitary definition and instead encourage us to think about heterogeneity and multiplicity within hybrid ethnicities.

A problematic area for hybridity is that it can be used to entrench racist attitudes further when the new hybrid category is used by the dominant culture as an explanatory concept. Explanatory concepts reify difference as something that explains how a group of people can be assumed to be. Unitary definitions of hybrid identities feed into this tendency to create the "other" that postcolonial

theories have brought to the foreground. Postcolonial analyses have deepened the understanding of how hybridity functions within dominant culture as well as within colonized groups. Decolonization is about disrupting the dominant discourse, and hybridity may in some ways play into that discourse. Researchers need to use hybridity terms with reflection and care as to how and when they employ the blended concepts.

Application

At a most basic level, hybridity can be the demographic description of a population that a case study is based upon. At a more complex level, hybridity itself could become the focus for case study in terms of how particular identities negotiate aspects of their lives. For example, in Mariana Souto-Manning's case study exploring immigrant assimilation in the United States of America, she explores the common practice among newcomers of renaming themselves or their children. She examines how renaming practices act to hide hybridity within school systems, further promoting the marginalization of newcomers. In this type of research, hybridity is the focal point for the research agenda and it is often employed to inform programs and public policy to deepen their impact. Souto-Manning's case study is useful in promoting curriculum diversity and culturally enriched early childhood education. Researchers who use hybridity to illuminate the lived experiences of enculturation are trying to address the material conditions of people's lives. In so doing, they are attempting to make programs more relevant or to ensure that policy is at least heading in a meaningful direction.

Critical Summary

Hybrid ethnic identities have the potential to highlight the permeable nature of concepts like race where multiple heritages are embraced. In some of these analyses, race is problematized as a fiction that never really existed. In so doing, hybridity as a polycultural concept becomes the site of the dislocation of polarity of racialized identities. In theorizing hybridity, scholars seek to problematize and unseat difference from a position of absolute privilege. This is done in a postcolonial questioning of who defines what is different, civilized, developed, and so on. Hybridity also can be used to essentialize people in racist discourse, so it is not a completely innocent term in its employment as it can simultaneously reflect and promote emancipation and enslavement to the extent it constructs people as a homogenous hybrid group.

Colleen MacQuarrie

See also Audience; Colonialism; Constructivism; Imperialism; Intertextuality; Native Points of View; Othering

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Hypothesis

A hypothesis is a concise, affirmative statement, written in the present or past tense, whose demonstration is the main goal of a research. It can be demonstrated in its entirety based on empirical evidence (facts or actions). It is the research bet, the essential commitment that a scholar makes before starting any empiricist research, including that based on case study.

As such, a hypothesis indicates the "what" component in an empiricist research protocol, and it identifies the core contribution the researcher wishes to make to the advancement of scientific knowledge. Therefore, it also serves as the research compass, the guideline to determine research goals to the extent that it indicates what kind of information is necessary and what information is secondary or superfluous to test the hypothesis.

In what follows, an explanation of how good hypotheses are to be written, the debate between quantitative and qualitative hypotheses, and imagined and real examples are provided.

Conceptual Overview and Discussion

The word *hypothesis* (plural hypotheses, υπόθεσις in Greek) derives from the verb *hypotithenai*, meaning "to put under" or "to suppose." As a result, the word has been incorporated into common language as a rough equivalent to "guess," "supposition," or "speculation." However, a scientific hypothesis is more rigorous than mere speculation, so it is useful to point out what it is not:

A recipe (a prescriptive, normative statement, identified by the use of "should," "must," "ought")

Something expected in the future (identified by the use of "will," "shall")

A conditional idea (making use of "would")

A question; if anything, a hypothesis is rather the presumed answer to a research question

An either/or guess ("maybe yes, maybe not")

A lengthy explanation on how a research idea is rationalized

No statement under any of the preceding forms can be a valid hypothesis because none of them can be demonstrated by facts or actions (empirical evidence). Demonstration of any of those statements is either impossible or must rely on values, beliefs, perceptions, hunches, intuition, common sense, and so on, or a combination of the above. None of them helps the advancement of scientific knowledge because they depend on every individual researcher's perceptions and cannot be replicated.

Two examples may illustrate this point. "Caucasian men over 40 years old are more likely to commit suicide than any other demographic category" is a hypothesis, because membership to both the Caucasian men and the age categories can be clearly established, and occurrence of suicide can be tracked and observed. "Middle-aged Caucasian men would not commit suicide if they found more meaning in their lives" is not a hypothesis because as the adjective middle-aged does not mean the same to everyone, it is impossible to demonstrate that something will not occur in the future, and "the meaning of life" is a highly subjective idea that cannot be determined or measured without an observable, itemized alternative definition (known as operational definition).

Hypotheses often express relationships between two or more variables. A variable is an attribute that can be observed or somehow measured in an object of study. Variables in a hypothesis can be related as simply occurring together (correlation) or acting as causes and effects (causality). However, hypotheses do not necessarily relate variables; they can indeed simply attempt to describe or unveil an existing situation and the context (conditions) under which it occurs. The example provided above expresses a correlation among gender, ethnicity, age, and suicide. If we added to it that "Suicide is triggered by financial or emotional stress," we would be suggesting a causality relationship between the variables stress and suicide. In addition, if we surmised that "Suicide is more likely to occur whenever there is economic crisis or political instability," we would be creating a situational hypothesis wherein the societal context is more determinant than specific attributes observed among individuals to produce the outcome of increased occurrence of suicide.

Variable-based hypotheses are more common in quantitative research, that is, research that attempts to prove the hypothesis by measuring variations of selected attributes in a large number of individuals or cases observed, assigning numerical values to those measurements. Situational hypotheses are more common in qualitative research, that is, inquiries that aim at a deeper understanding of a limited number of cases, even only one, and seek their explanation in nonnumerical terms. Qualitative studies privilege thick historical description and closer observation of context over a large number of cases considered. Qualitative hypotheses and research methods are therefore more congenial with case study research.

Hypotheses are important for case study research because they help single out a limited set of features present in the observed cases that the researcher considers to be more relevant to describe them or explain their behavior. Besides, hypotheses are crucial for comparative purposes because they isolate the elements that will relate specific cases to others, or bridge them to existing explanatory theories. Comparing a case study or relating it to theory is useful to escape the risk of exceptionalism; that is, considering that a case under study is so unique that it can be understood only in its own terms.

Rules of the scientific method require that the researcher stands by the stated hypothesis through the research process. Even if factual information found turns out not be in support of the stated hypothesis, the advancement of knowledge is still well served when inconsistencies between theory (accepted truths, usually found in the available literature) and reality are shown.

Application

Two examples of hypotheses and the way they can be tested empirically are provided by the *World Values Survey* (WVS) and Seymour Lipset's comparison of Canada and the United States. These examples illustrate contrasting methods used to test hypotheses using either quantitative, large-N research designs or qualitative, case-based research.

In its own words, the WVS is a global network of social scientists who, since 1990, have surveyed the basic values and beliefs of the publics of more than 80 societies. They assume that core values change over time, reflecting shifts in the economic and societal environments in different societies. The overarching hypothesis is that, as living conditions improve, people's core values become increasingly postmaterialist, that is, less attached to concerns about survival and order and more concerned about issues of quality of life—such as gratifying employment, respect for the environment, social harmony, and the like. In order to support their point, WVS researchers apply surveys every 5 years to thousands of individuals around the world, compiling the results in quantitative aggregates that measure values such as happiness, secularism, self-expression, and others.

Lipset's main hypothesis is that the United States' independence in the late 18th century gave birth to two distinct countries and societies: on the one hand the United States, geared toward change, innovation, and popular empowerment, and on the other Canada, oriented toward tradition, conservatism, and deference to authority. These genetic differences had a profound impact on the development of institutions and values in the two countries. In order to make his point, Lipset engages in a detailed description of the circumstances under which this divorce within the British North American family occurred, elaborating extensively

on the different effects these distinct value orientations had over time. Thus, this is a good example of qualitative, case study-based, small-*n* research that privileges thick description and context.

None of these methodological approaches is necessarily superior to the other, as there are advantages and downsides to each one of them. Enthusiasts of quantitative methods would highlight the WVS's use of thousands of cases, presumably offering greater variation and therefore a better portrait of existing global trends, and its ability to analyze the data with mathematical tools. Supporters of qualitative research will underscore Lipset's ability to reach back over more than two centuries of history, and his detailed description of the case studies, which provide clear and direct contextual evidence to make sense of contemporary realities of the countries studied.

Critical Summary

For research efficiency sake, it is worth spending some time to define a hypothesis properly before research starts. A good hypothesis will become a road map for the research tasks, to the extent that it will identify the data to look for and how they are going to be related to a demonstration contributing to the advancement of knowledge. This is equally true for qualitative and quantitative research designs. While case study research is more congenial with qualitative methodologies, there is no unequivocally "right" methodology: whether quantitative or qualitative hypotheses and methods are more adequate will ultimately depend on the facts to be researched.

Julián Castro-Rea

See also Qualitative Analysis in Case Study; Quantitative Analysis in Case Study; Research Framework; Research Objectives; Research Proposals; Research Questions, Types of

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I

IDEOLOGY

The concept of ideology is one of sociology's most slippery. With a richly complex and contentious history, it has been variously used to characterize a vast array of tightly or loosely organized sets of ideas, ideals, beliefs, passions, values, *weltanschauungen*, religious and political philosophies, and moral justifications. Three important strains can be identified: (1) any set of scientific, religious or commonsensical beliefs used to promote positive social change regardless of their veracity; (2) a specific set of commonly recognized beliefs that legitimate and organize political behaviors; and (3) false beliefs that have the intended or unintended consequence of subordinating one social group by another.

Conceptual Overview and Discussion

The first strain of ideology is closest to the original usage. The concept of ideology was first developed by the French Enlightenment philosopher Destutt de Tracey in *Elements d'Ideologies* (1801–1805) as part of an all-embracing system of ideas, or general "science of ideas," that would rely strictly on the analysis of sense impressions to uncover the sources of bias and prejudice. In this conceptualization, ideology would serve as a mechanism to promote positive social change. This is the most archaic and least common usage.

The second strain is commonly found in politics and refers to an openly recognized and cohesively organized group of beliefs that promote particular

value orientations, such as communism, fascism, liberalism, and certain types of nationalism. These types of ideologies are often oppositional and develop into political reform movements. Studies of this type of ideology often investigate the type of personalities most likely to adopt such ideologies. An example is Theordor Adorno's investigation of the "authoritarian personality" and its relationship to the rise of totalitarianisms such as fascism. Other studies in this strain may examine the social consequences of an ideology, for example, how neo-liberalism furthered the globalization of transnational capitalism, decertification of labor unions, and the deskilling of labor as a result of promoting free trade agreements such as the European Union and the North American Free Trade Agreement. In the arts, this strain of ideology characterizes and promotes certain artistic movements: cubism, futurism, romanticism. Some artistic movements are more explicitly ideological than others; Dadaism, for example, was an openly ideological movement sympathetic to the political ideology of anarchism and geared toward fomenting radical social change. These types of ideologies, whether or not they are accepted and adhered to, are commonly recognized and often openly contested in social and political forums and debates. The first two types of ideologies are open to public scrutiny and share the common goal of social reform, these features are reversed in the third usage.

The third form of ideology refers to a set of false beliefs that serve to legitimate social inequalities. This conceptualization originates with the posthumous publication of Karl Marx's *German Ideology*

(1927) and Karl Mannheim's Ideology and Utopia (1929/1936). Throughout the 20th century, in concert with communism and socialism, this form of ideology enjoyed wide dissemination in Marxist, social science, and other academic literatures. Marx postulates that the character of ideas in any society are related to material conditions and furthermore that economic conditions have historically been ones of subordination and exploitation and that such inequitable relationships have been legitimated by certain ideas that consciously and unconsciously originate in and are promoted by dominant groups. Marx's classic definition of ideology is that "the ideas of any epoch are the ideas of the ruling class." In capitalist society, the dominant group controls the production of ideas because the labor process, which is the fundamental source of human essence and dignity, is alienated or wrested away from the control of workers, who form a degraded and socially fragmented mass. This degradation is maintained over time through an ideology that fosters false consciousness among workers as to their "real" human essence and collective interest. In class societies such as capitalism, class membership influences ideology, and ideologies are thus partial and biased or false and support the status quo and social stability.

The Marxian concept has encountered a wide range of criticism and elaborations. Most of the criticism revolves around the implications of economic determinism and the consequences of asserting that all ideologies in capitalism are by definition distorted. First, ideologies other than class-based ideologies have been identified, for example, gender ideologies, such as patriarchy; race ideologies, such as anti-Semitism; generational ideologies, such as ageism; and artistic ideologies, such as romanticism. Class interest is thus too narrow a basis for understanding social differences and behaviors. Second, the Marxian concept does not allow for an objective base for the criticism of ideas. If all ideas are distorted, then nonillusionary ideas are, by definition, impossible. Any discussion, including Marx's, must therefore be illusionary, because it was formulated from inside of capitalism.

Mannheim recognized both of the preceding limitations in the Marxian perspective. He accepted the fact that all ideas are relative and proposed a distinction between ideologies that promote the status quo and "utopias" that challenge it. Other

important elaborations on Marx's concept of ideology are Georg Lukács's commodity fetishism and reification, Antonio Gramsci's hegemony, and Louis Althusser's ideological state apparatus. Beyond the Marxian framework other scholars have had an interest in ideology; perhaps one of the most significant is the sociologist Daniel Bell. In the first (1960) edition of The End of Ideology he argues that with the rise of a postindustrial society and the triumph of Western political economies in the mid-20th century, the older Enlightenmentbased political ideologies, such as communism, were secular religions that had become irrelevant and that history in the sense of a conflict of ideologies was coming to an end. In the introduction to the 2000 edition of this book, he argues that the fall of communism and the lifting of ideology in the late 20th century resulted in the recursion of traditional values and parochial beliefs and the resumption of history through interethnic conflict.

Application

Although there are extensive studies that have adopted some form of the concept of ideology in their analysis, John Berger's polemical Ways of Seeing is a consistent, brief, and useful example. Berger applies a Marxian concept of ideology to the analysis of art history. For Berger, traditional art historians have obscured art history. They have emphasized the esoteric and aesthetic aspects of artworks rather than their political and economic origins and social consequences. The visual arts, Berger claims, are reified commodities that glorify property and elitism and thus are ideological mechanisms that legitimate capitalism and the things it will buy. Berger argues that famous artworks—for example, the Mona Lisa—purchased for exorbitant prices and hung in stately museums acquire a cultural status as "holy relics" that inspire in the viewing public a reverence and nostalgia for the inequities and hierarchies of a glorified past, which consequently impedes critical assessment of present social arrangements and priorities. Berger also examines how the ubiquitous use of the nude female body for male visual consumption under the guise of great art serves to reinforce gender inequities and perpetuate patriarchy. This approach became useful in early feminist critiques of art history such as Griselda Pollock's and Rozsika Parker's Old Mistresses, wherein they argue that female painters and female themes have been systematically ignored by art historians.

Critical Summary

The concept of ideology generally suffers from multiple and contradictory usages, but in particular it tends to exaggerate the importance of cultural beliefs and values, invoke a presumption of a fabricated social consensus where none exists, and thus elide the discursive implications of routines of everyday life and overt and covert workings of political and economic power. The great strength of the concept is that it urges a healthy questioning of the biases inherent in all cultural texts.

Janet M. C. Burns

See also Base and Superstructure; Class Analysis, Colonialism, Consciousness Raising, Historical Materialism

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IMPERIALISM

In its broad meaning, imperialism describes the domination by one people or state (or a group of them) over others in a manner advantageous to the former and usually at the expense of the latter. Imperialism can take different forms across time and space. The literature on imperialism makes a common distinction between formal and informal imperialism. Formal imperialism involves direct political and administrative rule following territorial conquest or its functional equivalent, as in the European colonial rule of far-distant territories in the 19th and earlier centuries. Informal imperialism describes less formalized types of domination or control that can be achieved through less direct means, such as economic dependence, deep cultural influence, unequal military alliances, and local client regimes. Case study research can be used to study formal and informal imperialism.

Conceptual Overview and Discussion

Imperialism derives from the Latin word imperium, which can be translated into English as "rule" or "authority." The related words empire and emperor had been in use since the Roman times, but the term imperialism began to be used in the late 19th century. The original usages of the word were very specific. It was initially used to refer to Napoleon III's pretentious efforts in the 1860s to restore the glorious era of Napoleon I. Soon afterward, in the 1870s, imperialism started to be used in reference to the overseas expansionist policies of the British government. It became more widely used and acquired a broader meaning in the 1890s in the course of public debates over the European states' rush to carve up Asia and Africa as part of their colonial empires. By the turn of the 20th century, the term *imperialism* was added to the scientific vocabulary as intellectuals began to propose theories of imperialism. There is still much controversy and fierce debate over the meaning, causes, and consequences of imperialism. Furthermore, the word itself carries negative connotations. Despite these problems surrounding the term, it is a scientifically valid concept used by social scientists to explain the relations of domination or control between countries or nations.

The British liberal economist John A. Hobson is credited as the founder of the first modern theory of imperialism. His book *Imperialism: A Study*, published in 1902, had a major influence on subsequent research on the phenomenon. Hobson's study focused on the imperialism of the late 19th century, which was marked by the intense competition of the major European states for overseas colonies and spheres of influence. The crux of Hobson's theory was that late 19th-century imperialism was new in that it had economic roots in industrial capitalism. His argument that European imperialism resulted from maladjustments in the capitalist economy became the basis of the subsequent Marxist theories of imperialism, and much scholarly debate on the economic causes of imperialism to this day has revolved around the question of the relationship of imperialist expansion to capitalism. Hobson argued that the capitalist systems are faced with the major dilemma of underconsumption and overproduction. This dilemma results from capitalists' tendency to oversave and workers' lack of purchasing power to consume all the products of industrial capitalism. Capitalist employers seek to maximize their profits by keeping wages low. Low wages dampen the purchasing power of workers, which in turn makes it difficult for capitalists to find profitable investment outlets at home. Capitalists start searching for profitable ventures abroad in the economically less developed regions in order to invest their surplus capital and profits. The result was the imperialist expansion and colonial acquisitions by the great capitalist states in the late 19th and early 20th centuries. Despite Hobson's pioneering work and influence, the most well-known theory of imperialism in the 20th century was that of Vladimir Lenin, the leader of the Bolshevik Revolution. Lenin's theory drew heavily on earlier Marxist writings as well as Hobson's work on imperialism. In his widely cited Imperialism: The Highest Stage of Capitalism, written in 1916, Lenin described imperialism as a stage of capitalist development. Imperialism as the monopoly stage of capitalism exhibits several key features: (a) the concentration of production and capital in large cartels; (b) the merging of banking capital with industrial capital, giving rise to financial oligarchies; (c) the export of surplus capital from the more advanced capitalist countries to the economically underexploited regions, which

promises higher rates of profit; (d) the rise of international capitalist monopolies that economically divide up the world among themselves; (e) and, finally, the territorial division of the world into spheres of influence and colonies among the great capitalist states. Lenin argued that imperialism was an inevitable outcome of the monopoly stage of capitalism because of the inherent contradictions of capitalism, including overproduction, underconsumption, and the tendency of the rate of capitalist profit to fall. Imperialism could provide no more than a temporary solution to these contradictions. Once the capitalist powers had parceled out the entire world into spheres of economic interest, or colonial territories for exploitation, intense rivalry among them would provoke international wars, leading to the downfall of capitalism. Lenin explained the outbreak of World War I in terms of imperialism. He believed that only socialism could bring an end to imperialism. Thus, Lenin rejected Hobson's reformist proposal that imperialism would no longer be necessary as an outlet for surplus capital if domestic markets were expanded through increases in workers' wages and redistribution of income within the capitalist system. There are a number of other Marxist theories of imperialism dating to the early 20th century, including those offered by Rudolf Hilferding, Nicolai Bukharin, Karl Kautsky, and Rosa Luxemburg. They are mostly variations on the thesis of the causal relationship between imperialism and the contradictions of capitalism; they all put varying emphases on the factors of surplus capital, the declining rate of capitalist profits, underconsumption, intercapitalist competition for markets, and sources of raw materials in explaining this relationship.

The Marxist theories of imperialism had a significant influence in the development of the theory of dependency during the 1960s and 1970s. The object of dependency theory was to explain the huge gap between the developed capitalist countries of the core and the underdeveloped countries of the periphery, which persisted despite the end of formal colonialism in the post–World War II era. Dependency theorists proposed that the underdevelopment of the peripheral countries was due not to internal factors but to their subordinate incorporation in the world capitalist economy and the neocolonial type of economic domination and

exploitation of the periphery by the core capitalist countries.

The economic theories of imperialism, both Hobsonian and Marxian, have been criticized on both theoretical and empirical grounds. Numerous empirical tests have revealed various errors and anomalies in the arguments of these theories. For example, in a refutation of both Hobson and Lenin's theses of the exportation of surplus capital, critical examinations found that most of the capital exported from the great capitalist countries during the age of new imperialism (1875–1914) flowed into other industrial capitalist countries or the older colonies of white settlers, such as Canada and Australia, rather than the new colonies in Africa or Asia. These examinations also rejected the claim that the exportation of surplus capital was essential for capitalist profitability on the grounds that workers' purchasing power was on the rise during the period. As a direct challenge to Lenin's theory, critics showed that in the most powerful imperialist capitalist country, Great Britain, there were hardly any capitalist cartels or monopolies at the turn of the 20th century. Such negative assessments could not, however, prevent the economic theories of imperialism from setting the terms for much research on imperialism in the 20th century.

Application

A number of scholars followed a primarily theoretical line of criticism against the economic theories of imperialism, and some of them formulated a political theory of imperialism as an alternative. One of these scholars was Joseph Schumpeter. Schumpeter not only disassociated imperialism from capitalism but also argued that the two were antithetical to each other. Defining imperialism as the objectless disposition of a state to forcibly expand its territories, he emphasized that imperialism predates capitalism and that it cannot be reduced to economic factors alone. Imperialism is rooted in the atavistic impulses of the military elite and militaristic institutions. He believed that imperialism would not survive the further development of capitalism's internal dynamic, which is free trade. Schumpeter's account shares one important aspect with the economic theories explained earlier: They all locate the causes of imperialism in the more

powerful societies that seek imperialist domination. According to a number of other scholars, such as John Gallagher and Ronald Robinson, however, the sources of imperialism are found in the crises of the weak and less developed countries in Asia, Africa, and Latin America. Another major contemporary approach to imperialism focuses on the international political system. The proponents of this theory, such as Kenneth Waltz, Benjamin Cohen, and Edward Gulick, explain imperialism in terms of the anarchic structure of the international political system. An anarchic international system, which is defined as the absence of a central world authority that can guarantee international order, gives rise to regularities of both opportunities and motives for imperial domination. In this view, imperialism is a normal manifestation of power disparities among states as well as the balance of power politics in an anarchic international system such as the one that exists in the world today. In this system, stronger states often try to increase their power relative to rival states or seek to balance each other by exerting control over weaker states.

Critical Summary

The language of imperialism was largely abandoned during the 1990s while the focus of academic attention turned to globalization. Many of the fundamental questions that the theories of imperialism had addressed in the past were now discussed from the perspective of globalization and without any reference to the terminology of imperialism. Only a small group of Marxian scholars protested that the discourse of globalization obscures attention to imperialism and serves to legitimize the global rule of transnational capital. They claimed that contemporary globalization, which is essentially the global expansion of highly inequitable neoliberal capitalism and the increasing domination of the world by transnational capital, equals imperialism. The term imperialism has made a striking comeback in recent years. The key referent for a stream of recent publications that employ imperialism as an explanatory framework is the United States as a new superimperialist power. For critics, the United States's current policy of unilateral interventionism and preventive war is a global strategy of imperialist domination that serves either narrow national interests or the

needs of exploitative global capitalism. But there is also a cautious espousal of empire and imperialism by some scholars, such as Michael Ignatieff, who claim that only a new kind of (American) imperialism can uphold universal human rights and democratic values.

Cultural studies of imperialism have also attracted great attention in recent years. These studies focus on the role of literary representations, discourses, imagery, and beliefs in establishing and maintaining imperialist domination by one nation over others. Cultural theorists examine the ways in which Western imperialism has been supported by narratives and racialized and gendered representations and ideologies that imply the inferiority of peoples of other societies.

Nilgun Onder

See also Class Analysis; Colonialism; Historical Materialism; Ideology; Power

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INDETERMINACY

Indeterminacy refers to the presence of uncertainty when attempting to make interpretations of phenomena whose outcomes depend on a multitude of factors. Studies of human and social behavior that consider the importance of indeterminacy as part of the research design recognize that uncertainty or ambiguity within social systems indicate that interpretations vary from time to time, person to person, or case to case.

Conceptual Overview and Discussion

Different philosophers and social theorists have taken the notion of indeterminacy to mean that there are many unknown meanings to factors that shape social reality. Indeterminacy can be conceived as similar to ambiguity when applied to the interpretation of texts. For instance, deconstruction theorists such as Jacques Derrida have applied the notion of indeterminacy to question the fundamental oppositions in Western philosophy. According to David Clines, Willard Quine established the indeterminacy-of-translation thesis to explain that one cannot rely on the notion that the meanings of particular words are the same across cultures. In effect, the meaning found in a particular usage or translation of words depends on both the context within which a word is used as well as the intention of the user of the word. For Quine, the meanings of words are determined not so much by the user as they are by the general usage of a word within a culture. In essence, accounting for indeterminacy can reveal alternative interpretations as well as introduce novelty into meaning-making processes.

Indeterminacy has increasingly been used to emphasize the importance of exploring underlying factors that may contribute to actions taken by individual actors. The understanding of the nature of particular actions taken is dependent on the intentionality of language and meaning within complex social contexts. Indeterminacy questions the assertion that causality can be explained through reductionism (often referred to as deter*minism*), which asserts that the relationship between cause and effect is unidirectional rather than dynamic. For example, determinism would suggest that there is a positive relationship between income level and one's intellect. If one's intellect is regarded as higher than most people's, then it follows that one's income will be higher as well. Although seemingly trivial, this example of a unidirectional causeand-effect relationship does not account for a multitude of factors that can contribute to one's income. For instance, how intellect was measured and in what circumstances a higher income is desirable should be questioned. In effect, factors that contribute to understanding the relationship between intellect and income are indeterminate.

Anthropologist and communications theorist Gregory Bateson developed a vast body of knowledge by relying on the certainty of indeterminacy within biological and social systems. Bateson grounded his theoretical premises by questioning the epistemological fallacies associated with logical empiricism that gave rise to biological determinism. Within communication studies, Bateson focused attention on the idea that information processing requires the identification and distinction of differences that exist within systems. However, for Bateson indeterminacy is found within systems that contain the possibility that it is a difference that makes a difference, meaning that distinctions within systems can lead to novelty and the emergence of factors contributing to social phenomenon. In effect, factors that influence the processing of information rely on indeterminacy, and it is a set of parameters that establish social order rather than the unidirectional relationship of these factors. Bateson's theories have given rise to new fields of study within the natural and social sciences and have questioned the preeminence of logical positivism within the social sciences.

Application

As David Revill pointed out, the 20th-century composer John Cage was noted for his thesis that the variability associated with the musical experience cannot be replicated from one time to the next. In fact, Cage was beginning to articulate that understanding the complex nature of human experience and action can be realized through context rather than replication of factors. Within a case study approach to social research individuals often provide a picture of reality that accounts for the information or data available to the researcher, who selects information on the basis of a priori criteria. However, the presence of uncertainty or indeterminacy means that one can never be absolutely certain that there is one way of knowing or that there is a single meaning to a particular term. It is this sense of uncertainty that gives the case study method much value and power with respect to research design.

A common way of viewing indeterminacy within a case study is to ask the question of what has not been included in a particular case; in particular, what information was missing that makes a picture incomplete or limited? Although one would immediately try to invalidate the worth of a particular case because it does not explain a particular phenomenon in its totality, there is great value in considering that uncertainty has a role in not only encouraging further exploration but also in reconceptualizing problems as being dynamic in nature.

Critical Summary

Information that is uncertain or confusing has often been relegated to being an outlier in positivist research as a limitation of the case study research design. However, uncertainty can lead to further questioning by reflecting on the nature of research and debating the necessity of studying a particular phenomenon. For positivists there is an inherent mistrust in trying to address uncertainty, and in fact people often consider it viable to establish control in order to determine causality within dynamic systems.

The recognition of indeterminacy reveals that what can be a limitation of the case study approach to research is in fact an integral strength. Although one cannot account for every possible factor or scenario, in fact a case is often a best guess of a particular social phenomenon. What is revealing within cases can often be seen as a starting point or even a baseline that allows one to begin to understand the complex nature of social interactions in the narrow sense, or the place that social interactions have on the development of social order.

Although social reality is perceived as a totality, we are unable to perceive or understand the finest of details that contribute to individual actors and their ability to exercise their agency. Most social phenomena cannot be disaggregated or reduced into single factors, but one must be careful to avoid what Bateson referred to as extreme relativism. As William M. Reddy put it, the use of salient descriptions in a rigid or inflexible fashion that rules out alternative descriptions can lead to various methodological, factual, and political errors.

Jorge Sousa

See also Complexity; Epistemology

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INDEXICALITY

Indexicality is a term Harold Garfinkel borrowed from linguistics to describe how people make sense of their everyday lives. The term is one of two main concepts in ethnomethodological research. Indexicality describes the context-dependent nature of language and language use. The term has been borrowed by social science researchers to describe the contingent meaning of other texts, such as signs and symbols.

Conceptual Overview and Discussion

The study of ethnomethodology is focused on how individuals make sense of their everyday lives. Ethnomethodologists also are interested in the practical activities that individuals use to understand their world. To examine these, researchers explore the daily use of individual accounts. One way to study individual accounts is to study the indexicality of words or statements.

Origins

The term *indexicality* originated in linguistics. Linguists identified that some words did not have meanings outside of their use. For example, words such as *that*, *he*, or *it* do not have meanings on their own. The meanings of these words come

solely from how they are used in the context of the conversation. It is for this reason that indexical words have been treated as problematic by linguists and philosophers.

In contrast, ethnomethodologists believe that indexical expressions are fundamental to understanding practical human behavior. Ethnomethodologists believe that everyday life is a practical accomplishment. This means that everyday individuals engage in practices that allow them to navigate their various social interactions in the world. The study of these practices sheds light on the processes that individuals use to achieve their routine goals in life. This does not mean that the statements individuals make are arbitrary or predetermined. Ethnomethodologists are primarily concerned with how individuals make sense of their situations when meaning is imprecise; thus, they examine how individuals practically determine meaning in different settings.

As in linguistics, *indexicality* in ethnomethodology describes how language and, by extension, other forms of communication are context dependent. This means that all language is dependent upon when it is used and by whom it is used. The importance of this assertion is that meanings are wholly dependent upon the contextual factors that are present when the word/symbol/sign is used. Thus, meaning is a loose concept whereby what is understood by the word or statement is contingent on factors that are situationally dependent.

Objective Versus Indexical Expressions

Another area of concern is the distinction between objective and indexical expressions. Linguists and philosophers are concerned with precision in meaning. From their perspective, indexical words or statements obfuscate meaning, because the meanings of these words and statements are contingent. To overcome this supposed problem, the use of objective expressions is suggested. These expressions are intended to have meaning that is context independent. These statements include, but are not limited to, mathematical expressions and scientific writing. Nevertheless, as Richard A. Hilbert points out, it is not possible to have completely objective statements. To do so would mean that every context would have to be identified and clarified so that meaning would not be misconstrued.

Application

In case study research, indexicality will most frequently be discussed as a part of ethnomethodology. The researcher will determine what aspect of practical sensemaking he or she wants to study and, as a part of this program, he or she will look to identify aspects of indexicality. For example, similar statements made at different times can have different meanings. "It's cool" could mean that the temperature of an object is cold. The statement can also mean that something is cutting edge or extremely popular. Moreover, the individual who makes the statement can also change the meaning. A teenager saying "It's cool" has an entirely different meaning than if one of his or her parents said something similar. In this instance, understanding the indexicality of who is making a statement and the context in which it is stated could indicate what is meant and why the statement is interpreted in a particular way.

Another way that indexicality can be used in case study research is to look at how individuals make sense of statements or behaviors in different contexts. Warren Handel describes how the inhabitants of skid row will often swear and denigrate police officers when asked to quit drinking. The police officers would, in most cases, ignore these insults and perform their duties. At other times, especially when someone was watching the interaction, the police officer reacted to what was said. This led the officer to act in a way that was inconsistent with previous interactions. The content of the statement was similar to what had been said previously; however, the indexicality of the statement was different. In this way, the police officer's behavior can be examined, and the behavior of that officer can be better understood by studying the indexical nature of different statements.

Critical Summary

Indexicality is one of the key concepts of ethnomethodology. In case study research, understanding the indexicality of a situation helps in the investigation of how individuals use language and how context shapes the language use of individuals in their interactions. The challenge for the researcher is to identify the relevant aspects of the context that could lead to different ways of making sense of a specific situation.

William M. Foster

See also Conversation Analysis; Ethnomethodology; Reflexivity; Sensemaking; Textual Analysis

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INDUCTIVISM

Inductivism is an approach to logic whereby scientific laws are inferred from particular facts or observational evidence. This approach can also be applied to theory-building in the social sciences, with theory being inferred by reasoning from particular facts to general principles.

Conceptual Overview and Discussion

Theory-building can be accomplished through either inductive or deductive reasoning. Case study research lends itself particularly well to an inductive approach, and inductivism is the approach taken in many case-based research endeavor. The rich empirical data that lie at the heart of case study enhance the development of a theory that is accurate, interesting, and testable. The rich data can also act as an inspiration for new ideas. It is these data, and researchers' close adherence to them, that provides the discipline to allow theory built from cases to be considered objective. Through its process of developing theory, inductivism is a natural complement to deductivism, which completes the theory-building cycle by using data to test the new theory.

When approaching research from an inductive perspective, it is expected that theory will emerge through the collection and analysis of data. By letting theory emerge from the data, research can be conducted in areas for which limited theoretical knowledge exists. Research is conducted with no theory under consideration or hypotheses to test. In the particular case of case study research, the

theory emerges through patterns of relationships among constructs that are found during the data analysis phase of the study. These relationships can be found both within and across cases. The relationships are then used in the development of constructs, measures, and testable theoretical propositions, all of which add to the ability of inductive case study research to prove consistency within mainstream research, where high importance is placed on testable theory. Inductive case studies can be used to answer "how" and "why" questions in unexplored research areas. The approach is not adequate, however, for answering questions that ask "how often" and "how many," or for answering questions concerning the relative empirical importance of constructs.

Although it is the rich data collected through a case study that makes it a valuable tool for inductive theory-building, these same data can also pose challenges. As the researcher becomes immersed in the details of a case, it can be difficult to determine which relationships and constructs are crucial. A well-developed and useful theory needs to rise above the particular case being studied, and therefore choices and simplifications must be made. A common weakness of inductive case studies is a failure to be appropriately selective and present only those details that relate directly to the arguments being made.

Although inductive research does not start with a theory or hypotheses, a research question is still needed to guide the study and provide a lens through which the data will be analyzed. An inductive case study also needs to answer the question "why." Why is it an inductive case study? Readers need to be convinced both that the research question is crucial and that existing research does not address the research question adequately, or at all. Researchers must avoid *ex post obviousness* or, in other words, leaving readers unsurprised that at least one example of A leading to B was found in the world. Ex post obviousness can leave the value of the research conducted in doubt.

Cases selected for inductive case studies are often extreme cases, in which the rare or extreme circumstances can expose significant phenomena and insights to be used toward building theory. The data analysis phase of an inductive case study occurs recursively with the data collection. It is

recommended that in initial iterations of collection and analysis researchers write down whatever impressions occur, rather than editing out what seems important. It is difficult in the beginning of analysis to know what will and will not be useful and what emerging themes will end up comprising the theory. Selectiveness comes into play later in the process, as major themes emerge and a focus is found.

Application

Two exemplars of inductivism in case study research are Jane Dutton and Janet Dukerich's 1991 study of the Port Authority of New York and New Jersey's struggle with dealing with the many homeless people at its facilities, and Nicolaj Siggelkow's 2002 longitudinal case study of the mutual fund provider The Vanguard Group.

Dutton and Dukerich felt that a gap existed in the literature concerning the relationships between environments and organizations. There was a lack of an in-depth theory concerning the processes through which these relationships are accomplished over time. They chose an inductive approach to fill this gap by conducting a case study with the goal of developing a framework for conceptualizing how environments and organizations are related over time. The particular issue that formed the case itself was the way that the Port Authority was responding to homeless people. This issue was considered an extreme case because of its social relevance and its visibility both internally within the organization and externally to numerous constituencies. Multiple data sources, including a combination of openended interviews with Port Authority employees; reports, memos, and speeches prepared within the Port Authority; media articles relating to the Port Authority homelessness issue; conversations with the head of the Homeless Project team; and notes from a training session with Port Authority employees provided the rich empirical data required for a successful case study. Data analysis, consisting of theme analysis and the construction of a history of the issue, occurred iteratively with data collection. What unexpectedly emerged from the data through the theme analysis were the constructs of identity and image. On the basis of the data they examined and the themes that emerged, Dutton and Dukerich began the initial steps of building a theory around organizational adaptation with the ideas of identity and image playing a central role. Identity and image had not been a theoretical perspective that they set out to examine, but the importance of the constructs emerged through the inductive nature of their work.

Siggelkow's longitudinal case study followed the development path of Vanguard throughout its 20-year history, with a starting focus on gaining a better understanding of the underlying process of organizational development, an area of research he felt lacked an adequate vocabulary and a consensus on what constitutes the core aspects of organization. Although the study provides an example of quality inductive research conducted through a case study, added value is provided by the article itself, in which Siggelkow provided a detailed explanation of the iterative process he followed to arrive at his conclusions. His data collection, which was not influenced by existing theories of development processes, consisted of three stages: (1) analysis of archival data; (2) interviews with members of Vanguard's senior management team and several junior managers; and (3) two extensive interviews with John Bogle, Vanguard's founder, with a further analysis of archival data between the two interviews. Data analysis was a reiterative process between the data and the literature, and through the analysis patterns in the overall developmental path of the organization began to emerge. It was these patterns that led to the identification of four developmental processes related to the creation of organizational core elements and the creation of a method that allows the systematic identification of these elements at various points in an organization's history.

Critical Summary

Many aspects of the case study method lead it to be well suited as a tool for inductive theory-building. These include the acceptance within the method of choosing theoretically significant cases, the rich empirical data gathered through a variety of data collection techniques, and the iterative nature of the data collection and data analysis. As a result of these factors, patterns and constructs can emerge, providing a foundation for new theories. The use of high-quality case studies in this

manner has given inductivism a more stable footing in the mainstream research that prizes deductive reasoning.

Patricia Genoe McLaren

See also Extreme Cases

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INFORMANT BIAS

Informant bias is the potential error that occurs when subjects used in field research are reporting on others or on events at which they were not present. The proximity of the individual to the event and the individual's position within the organization on which he or she is reporting are thought to impact the validity of the information given. The discrepancy created by the use of informants is considered informant bias.

Conceptual Overview and Discussion

The concept of the informant was first used in positivist anthropological studies of American Indians, whose culture no longer functioned as a single entity. The informant provided information about the culture that could not be directly reported on. In the absence of observable conditions, informants were used to provide information about the cultures.

The use of the informant technique was brought forward in organizational research by Morris Zelditch in 1962. This work made the distinction between informants who reported about individual experience and those who reported about others.

Using an informant is contrasted to the use of a *respondent*, a subject who reports directly from his or her own experience. When individuals are asked to represent the organization, their role within the organization and how closely they are involved with the information requested creates a potential gap in the information provided.

When the informant approach is used in a (positivist) ethnographic study, the presence of the observer allows for judgments of the accuracy of the information provided. The researcher's experience allows for the separation of quality information from that which is not representative of the situation under examination. The use of informants in other types of field studies however, raises the greater potential for informant bias, which impacts the findings of the study. The ability to ensure accuracy of information is compromised by the use of accounts from individuals who may not understand or perceive the situation accurately.

There are two contributors to informant bias. The first is when the individual is reporting on events to which his or her proximity was limited and thus may not include all necessary information. If someone is reporting on behalf of the organization, that person is reporting on information to which he or she may not have been directly exposed or of which he or she does not have a complete understanding. If the informant is recounting past events, then memory distortion will also be a factor that will account for the bias. This is amplified if the person has not been directly involved in the first place and therefore jeopardizes the validity of the account.

The second contributor to informant bias is based on the individual's position. Research conducted at the organizational level is usually more susceptible to informant bias. The individual reporting for the organization may not understand or reveal the true nature of the concepts in question. The individual's portrayal of what is occurring within the organization may not provide a complete understanding of the given situation; for example, information provided by an executive versus information from a line worker varies. The informants may even disagree with one another. This disagreement can be due in part to different perceptions of organizational activity, depending on the position of the individual. The amount of inaccurate information constitutes the informant bias.

To reduce informant bias, it is recommended that either more than one informant, or some other form for or method of gathering information, be used. If more than one informant is used, then information can be verified across accounts. This provides a basis for evaluation of the validity of accounts provided by the informants. If only one informant is used, then the use of organizational documents as well can be used to reduce potential informant bias. Although not as rigorous as having multiple accounts to evaluate, the use of organizational documents can help gauge the accuracy of the information provided by the informant.

A mixed approach of using subjects as both respondents and informants can also be used to reduce informant bias. Combining respondent questions and informant questions on a survey can provide more information and thus ensure more accuracy. Respondent questions would be those pertaining to the individual's experience of which he or she would have firsthand knowledge. The informant questions would be based on organizational issues.

The reduction of the informant bias is recommended to be able to improve the validity of the research. The use of more than one informant or more than one method of information gathering provides a more legitimate argument for the given study.

Application

In 1974, John Seidler developed a method for measuring informant bias. Seidler's model allows for the quantification of responses among informants to derive the extent of informant bias found within the information gathered. This method provided support for whether the information could be relied on to portray the given circumstances that were being tested. Seidler looked at authority conflict in 136 Catholic dioceses. This study of informants supported the presence of the informant bias and provided a statistical approach to evaluating the quality of information based on the quantification of the informant bias.

Lynn Phillips conducted a study in 1981 that looked at 506 wholesale distribution companies to evaluate the error in using informants. This study used informants from various levels of the organization, ranging from presidents to accounting

personnel. The results provided support for the suspected differences in quality of information based on position and proximity to events. For example, CEOs in the smaller companies were more accurately able to make judgments than those in larger companies about supplier control over distribution operations. The CEOs in smaller companies most likely would have more direct knowledge than CEOs in larger companies, where such activity would be centralized. The study showed, through the use of multiple combinations of informants, the need to abandon the use of single-informant studies. There was a significant lack of consistency among the informants that reduced the quality of the information provided. The use of multiple informants, however, was able to reduce the informant bias concerns.

Critical Summary

Concern about informant bias is one that will vary in regard to the type of research being conducted. In completing research with the purpose of seeking a predictive truth, the presence of informant bias is a concern that needs to be addressed. The methods for limiting such a bias need to be considered to ensure the information that is gathered is as accurate as possible to be able to address the given question of inquiry.

The presence of informant bias lends itself to the question of why a person's position should impact the perceptions of reality as well as what causes the variations of that reality. The perceptual differences may uncover how proximity to events and organizational positions contribute to sensemaking within the organization. The varying differences created through the informant bias may tell one a great deal about the organization's unity or communication.

K. Doreen MacAulay

See also Cognitive Biases; Functionalism; Objectivity; Subjectivism

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Institutional Ethnography

Institutional ethnography, developed by Canadian sociologist Dorothy E. Smith, is an empirical approach to inquiry that combines theory and method. Unlike traditional case study research, institutional ethnography does not aim to generalize from or compare local phenomena. Although the initial point of entry is the examination of local phenomena, the end goal of an institutional ethnography research project is to expose how larger power relations shape local experience. In this way, institutional ethnography projects can be framed as extended case studies into the mechanics of power. Although institutional ethnography is a relatively new sociological approach, a growing number of researchers are using it to investigate a wide variety of research questions.

Conceptual Overview and Discussion

Institutional ethnography is an important tool for understanding social organization and developing strategies for activism to effect social change. The goals of an institutional ethnography research project are overtly political, detailing how social injustices are organized with the aim of disrupting oppressive work processes. Integrating insights from Marxist materialism, feminist theory, politics, and activism, as well as ethnomethodology, an institutional ethnographic inquiry begins in people's experience and expands to larger social

relations that, through textual coordination, form the relations of ruling, which include governments, corporations, the media, and academic discourses. The institution analyzed in institutional ethnography is not one organization but rather the work of several seemingly disconnected organizations that through their coordinated work form the ruling relations. Drawing on Marx's insight that all aspects of society, including concepts, are the result of human activity, a key tenet of institutional ethnography is that the ruling relations are traceable through the daily work practices of people. Interviewing and textual analysis are the most common research methods associated with an institutional ethnographic study, although other methods, such as participant observation and direct political involvement, have been used.

All institutional ethnographies begin with a disjuncture, the discrepancy between people's lived experience and ideological accounts of that same experience. Smith argued that traditional sociological research methods produce objectified accounts of reality in which people's actual experience is subsumed by established concepts. In the process of creating this objectified knowledge researchers transform the research participants into objects of study. To preserve the presence of the research participants as subjects, institutional ethnographers identify a problematic, a set of questions that orients the researcher to the lived experience, and a *standpoint*, an epistemological position and a portal into an analysis of how people's everyday experiences are shaped by larger social processes. Standpoint should be understood not as an identity but as a tool to investigate aspects of power relations that are normally obscured because they are normally framed from a ruling-class perspective. Approaching the research from the standpoint of marginalized people (e.g., those from racialized communities, immigrants, or indigenous peoples) reveals the work processes that result in exclusion and oppression. Standpoint focuses the researcher on how the institutional practices uncovered through the inquiry impact the individuals at the heart of the research project.

Because the goal of the inquiry is to expose how marginalization, brought into being through the actions of people, is socially organized, it is not necessary to conduct a large number of interviews. Each interview provides avenues of investigation

that lead either to further interviews or to texts, such as policy documents. Institutional ethnographers conduct initial interviews with people who have lived the disjuncture to gather rich detail. As the disjuncture becomes more clearly articulated, it is necessary to interview people who have experience in administration, management, or policy development in order to understand how different institutions (educational, government, employers) and their institutional guidelines (policy, legislation) function to shape the experience of those experiencing the disjuncture. The purpose of these interviews is to gather information from persons beyond those who directly experience the disjuncture to discover how the disjuncture is socially organized in and by the ordinary daily work practices of people in different locations. Institutional ethnographers believe that all participants are experts about their work processes, and the focus in these interviews is on what the people do and how their actions are shaped by texts.

A critical element of an institutional ethnographic study is the examination of texts such as policy, curriculum, work process instructions, procedural instructions, reports, and forms. These texts are examined to uncover the instructions embedded within them that shape people's work processes as well as coordinate action between institutions. Smith referred to this coordination as a text-mediated social organization. Forms, for example, are often developed in an effort to standardize work. Workers might be aware how forms limit their discretion and decision-making ability, but they might not be so aware that in using, or activating, the form they are putting into action administrative criteria set by management that may not work in the interests of marginalized people. During the interviews it is common for participants to overlook the role of texts in their work. To an institutional ethnographer texts are not static documents but rather the means by which the ruling relations exercise power.

In the social ontology of institutional ethnography both the roles of the researcher and of the participants differ from traditional positivist research. First, the participants in an institutional ethnographic study are not viewed as a representative sample. The purpose of the research is not to make generalizations about their experiences but rather to investigate the social organization that

shapes the participants' experiences. Local experience then is viewed as neither whole nor idiosyncratic but rather as windows into how power relations operate. It is not a concern that the experiences of the participants may vary widely, because the researcher can learn something about power relations from every experience. This approach does, however, make generalizations about the workings of power, as seen through individual experience.

Second, unlike positivist research traditions in which the researcher is meant to be detached, the role and presence of the researcher are integral, acknowledged parts of the research. In articulating the ontological foundation for institutional ethnography, Smith argued that it is not possible for any researcher to be objective, because all knowledge is grounded, and researchers are people who live in the world of experience. Instead of treating a researcher's experience and interest in an inquiry as an undesirable bias, institutional ethnographers often draw on their own insider knowledge of a phenomenon to map the ruling relations. Janet Rankin and Marie Campbell, for example, drew on their extensive backgrounds in nursing in their analysis of how the new managerial discourse is shaping Canadian healthcare system reforms which, they demonstrated, do not work in the interests of patients or healthcare workers. Similarly, the impetus for Susan Turner's institutional ethnographic study of municipal planning, land development, and environmental interventions was her experience as a resident of a community concerned about land rezoning in particular and the role of citizen's voices in the municipal planning process more broadly. Her extensive mapping of the municipal planning process revealed that citizens actually had very little input to the decision-making process.

Application

Because institutional ethnographic researchers share the same social ontology, the overall goal of the research projects is the same, that is, to examine how local experience is organized by ruling relations. There is much interest generated between institutional ethnographers across a wide spectrum of research topics, because every research project provides new data on the social organization of power.

One important example of how institutional ethnography can uncover how inequality is created and maintained is Roxana Ng's examination of the development and evolution of a community employment agency for immigrant women. Using institutional ethnography as her ontological and methodological approach, Ng drew on her own experience working as an employment counselor in this agency. By tracing the funding requirements imposed by the federal government and detailing how the funding conditions shaped the work processes of the counselors, Ng demonstrated how the community-based agency that was initiated with the goal of helping immigrant women find appropriate employment was transformed into an arm of the state. The work of the employment counselors positioned immigrant women into certain labor market relations that contributed to the segmentation the labor market along gender, racial, and ethnic lines. Instead of drawing on preexisting concepts such as "immigrant women" or "class," Ng investigated how the work processes of the counselors themselves were part of the creation of these very categories. By selecting women for certain labor market positions, "immigrant women" as a labor market category is created and maintained by the work processes of the counselors, which was also shaped by the funding requirements. Ng's empirical study shows how race, gender, and class relations work to shape immigrant women's access to the labor market.

George Smith's groundbreaking study on access to experimental drugs for people living with HIV and AIDS in Ontario drew from his many years of experience as a social justice activist. Approaching this inquiry from the standpoint of people living with HIV and AIDS, he questioned why new experimental drugs were not being offered to people as part of their treatment. Tracing provincial health policy and practice on public health, AIDS research, palliative care, and treatment, Smith demonstrated how there was a lack of infrastructure to support the distribution of new, potentially life-saving drugs to people living with HIV and AIDS. He showed how the treatment for HIV and AIDS reflected the ideological notion of AIDS as a terminal illness. His inquiry, which began in the everyday experiences of people living with HIV and AIDS, challenged this ideological construction of the illness. His participants viewed AIDS as a

difficult but not necessarily fatal illness, and because they were aware that HIV and AIDS patients were responding well to experimental drugs available in the United States, they wondered why they were not able to have the same promising treatments. Smith's work demonstrated how the lack of an effective infrastructure for new drugs impacted the treatment of patients, and his findings were taken up as a rallying point for HIV/AIDS activists in their demand for access to medication.

Critical Summary

The great strength of institutional ethnography is in the power of its analytic lens, which reveals how ruling relations shape people's experiences of marginalization. Because the focus of the inquiry is centered on the social organization of experience, institutional ethnography is not suited to research that aims to discover people's perceptions or feelings. Institutional ethnographers show how inequality is created and re-created through the work processes of individuals and make visible the assumptions and interests underlying bureaucratic processes. By revealing "how it works," institutional ethnographers provide critical information about how "it" can be disrupted. Institutional ethnographies provide a map of the ways in which power is exercised; the resulting maps are a useful tool for activists in their calls for social justice.

Bonnie Slade

See also Document Analysis; Epistemology; Ethnomethodology; Power/Knowledge; Socialist Feminism

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Institutional Theory, Old and New

Case study methods have played a foundational role in the study of organizations in their institutional environments. Case research methods are ideally suited for the study of institutions for four main reasons. First, case studies emphasize the critical importance of local and historical context. Robert Yin observes that case studies are best used when it is difficult to distinguish between a phenomenon and its context. Taking context seriously is consistent with a core tenet of institutional theory, which holds that organizations are influenced, if not fully determined, by the social conditions in which they are embedded. Imprinting, path dependence, and the infusion of organizations with meaning are all central concepts within institutional theory that were the result of the rich attention to contextual detail produced by case studies.

Case studies are also useful vehicles for studying institutions because they *embrace explanations of complex causality*. In contrast to multivariate or survey methods of social inquiry, whereby researchers try to isolate a single explanatory variable, case

studies adopt the perspective that social phenomena are inherently complex, and thus they often employ multiple forms of observation (i.e., archival, content analysis, direct and indirect participation) from multiple levels of analysis. *Complex causality*, which argues that similar outcomes, such as the adoption of a common organizational form or practice, can occur as the result of different institutional causes (i.e., coercive, normative, or mimetic pressures), and is a critical element of institutional theory.

Case studies are also ideally suited to the study of extreme events or profound changes in social order. Such changes are useful to institutional researchers because they provide natural experiments that offer glimpses of insight into the inner workings of institutions. As indicated earlier in this entry, institutional processes tend to be invisible, masked by habit and ritualistic reproduction. The microprocesses that underpin institutions are often observable only in instances of extreme change when the institutional fabric is torn and the inner activities used to maintain and reproduce institutions are exposed; thus, case studies are often the best way to capture such natural experiments.

Finally, case studies are *ideal tools to study the reified elements of institutions*. A central concept of institutional theory is the notion that some behavior becomes so habituated or taken for granted that individual actors are unaware of their conformity to institutional pressures. Case studies force the researcher to adopt more finely grained analyses of the day-to-day behavior in organizations. Such attention to quotidian detail helps institutional researchers capture the core, but often invisible, elements of institutions that are not directly accessible to researchers or participants but can only be inferred from routines and practices that habitually reproduce social order.

The four applications of case studies just outlined reflect four historical moments in the use of case studies in institutional analysis. The first application, attentiveness to social embeddedness, is a hallmark of how case study research was conducted in the early stages of organizational institutionalism. What is now described as the "old institutionalism" was defined by powerful case studies of single organizations that used thick description to demonstrate how social context and

meaning often overshadowed or subverted technical efficiency and production. This use of case study methods in institutional theory is illustrated through the exemplary work of Philip Selznick, Alvin W. Gouldner, Peter M. Blau, and Michel Crozier.

The second use of case studies, as *mechanisms* for understanding complex causality, is a characteristic of both the old and the "new" institutionalism. Neo-institutionalism effectively shifted the primary level of analysis for the study of institutional pressures from inside the organization to interorganizational fields. The new institutionalism also introduced a strong cognitive turn in focusing attention on the complex and often-conflicted interactions of multiple organizations as they, alternatively, engage in the relatively unthinking adoption of institutionalized practices or struggle over the norms and logics that define legitimacy in an interorganizational field. This entry explores and details this application of case study methods in neo-institutional theory through a description of the exemplary work of Huseyin Leblebici, Gerald R. Salancik, Anne Copay, and Tom King; Petter Holm; Andrew Hoffman; and Royston Greenwood, Roy Suddaby, and C. R. Hinings.

The third use of case studies, as windows into the internal mechanisms of institutions during extreme events, has been used by both macro and micro theorists to study processes of institutional change. Since Paul DiMaggio's call to address the role of agency in institutions, organizational researchers have turned their attention to processes of profound change, including the introduction of new forms of organizing, radical changes in organizational fields, and the ways in which shifts in field-level logics or institutionalized worldviews impact organizational behavior. Most of these studies have focused on examples of exogenous change, or change precipitated by the introduction of an external agent. This entry examines the use of case studies in this category of neo-institutional theory with a review of seminal case studies by Steven R. Barley, Paul DiMaggio, and Roy Suddaby and Royston Greenwood.

The fourth use of case studies, as tools for understanding the habitual reproduction of social order and power, is a less common but emerging application of case study methodology to institutional theory. The few case studies that exist in this

category focus on examples of *endogenous* change, or change caused by shifts inside the organization or organizational field. This is illustrated by using work by Tammar Zilber and by Nelson Phillips, Thomas B. Lawrence, and Cynthia Hardy. This section also examines a new form of case study research called the *extended case method*, which has not been used extensively to study institutions but has an extremely high potential to do so.

Old Institutionalism

The *old institutionalism* in organization theory is grounded in the early history of organization studies. Early organizational researchers observed that the core productive goals of organizations were often subverted by pressures and issues unrelated to technical or productive efficiency. Much of this work was accomplished by extensive case studies of single organizations.

TVA and the Grassroots

Philip Selznick's body of work exemplifies the use of case studies by "old" institutional theorists. TVA and the Grass Roots (Selznick, 1949) is a book-length case study of the organization created by the Franklin Delano Roosevelt Administration in 1933 as a rural electricity provider and a vehicle for regional economic development in the southern United States. Selznick's case study of the Tennessee Valley Authority (TVA), which he describes as a "social instrument" and a "living institution," established several founding principles of institutional theory, including the observation that organizations become "infused with value beyond the technical requirements of the task at hand"; the process of co-optation; and the notion that organizational goals often become subverted by social pressures, which he describes as the "unintended consequences of purposive action."

Selznick's study of the TVA demonstrates that case studies are not a single methodology as much as a comprehensive research approach that uses multiple methods to assemble information about a subject phenomenon in its real-life context. The TVA is a single case study in the sense that its primary unit of analysis is but a single organization, albeit a very complex one. His study occupies an entire year, with several weeks spent in intensive

contact with organizational personnel in the field. He reviewed archival documents, both public and private, and conducted personal interviews with key informants. All verbal statements were checked against the documentary record. He avoided reliance on a single source of data and assessed the validity of his informants by constantly appraising the consistency of information across all sources of data. His account includes extensive historical information.

Although Selznick's body of work includes other case studies, the TVA research set the standard for case study research in organization theory. His contribution to case research methodology is threefold. First and foremost, Selznick demonstrates the need for comprehensive data collection and the importance of rich and detailed attention to context. Key information was triangulated from multiple sources and through the use of multiple methods. In this way, Selznick was attentive to both the manifest and latent content of the data. Second, the TVA stands as an exemplar for how a researcher can move fluidly between a single case study and general theory. Finally, and perhaps most important, is the legacy of outstanding case studies produced by Selznick's students. These include classic studies of iconic organizations, such as the YMCA, by Mayer N. Zald and Patricia Denton, and the Women's Christian Temperance Union, by Joseph R. Gusfield.

Patterns of Industrial Democracy

Alvin Gouldner's classic study of the adoption of formal management practices by a gypsum factory has long been acknowledged as a foundational work in organization theory but has only recently been recognized as a foundational work in old institutional theory. Tim Hallett and Marc Ventresca laud Patterns of Industrial Democracy (Gouldner, 1954) for providing the microsociological framework upon which institutionalism has been constructed. The study analyzes the transition of an organization from one organized on logics of tradition, kinship, and informal structure to a bureaucratically formal organization focused on principles of productive efficiency. The study thus foreshadows later research in neo-institutional theory that describes the adoption of modern personnel practices, undertaken by James N. Baron, Frank R. Dobbin, and P. Devereaux Jennings; formal rule systems, by Frank R. Dobbin, John R. Sutton, John W. Meyer, and W. Richard Scott, as well as a separate study by Lauren Edelman; and, more generally, myths of rational production in organizations by John P. Meyer and Brian Rowan.

Gouldner's case study methodology is consistent with Selznick's TVA study in many respects. It focuses on a single organization, and it relies on multiple sources and different methods, including interviews and archival and documentary evidence as well as substantial direct observation in the plant. Like Selznick's case study, it offers a remarkable focus on contextual detail. Gouldner reviews thousands of pages of documentary material, for example, newspaper clippings; office memos; private letters; internal corporate reports; and public government documents, contracts, and arbitrators' decisions.

There are important differences, however. Gouldner is much more clearly ethnographic in his approach. Hallett and Ventresca suggest that this derives, perhaps, from the implicit assumption that Gouldner appears to hold about the process of institutionalization being driven, largely, by interactions at the level of the individual. Somewhat paradoxically, Gouldner's case study is much more positivist in its research design. He compares two production units within the plant, for example, a subsurface and surface-level unit. The study thus is similar to a comparative case with two intra-organizational sites. Gouldner is also much more structured than Selznick in the sampling strategy for interview subjects, deliberately seeking out a representative sample stratified by seniority, rank, and department.

Dynamics of Bureaucracy

Although not widely recognized as an institutional theorist, Peter Blau's detailed case study of a state employment and federal law enforcement agency generated two core insights upon which institutional theory has been built. First, and most generally, Blau's study demonstrates how interpersonal ties connect organizations to larger institutional structures in market exchange relationships. Second, Blau offers a clear description of the loose coupling that occurs between the formal productive structure of a firm and its informal social structure.

Blau's case study adopts a classic focus on thick description using multiple methods or, as he described it, "interlocking research procedures." He spent 3 months in each office and gathered data using direct observation, interviews, and documents. The interview and observation data reveal considerable sensitive information, suggesting that Blau was well accepted and trusted by his interview subjects. Blau also paid particular attention to the statistical data that were collected as part of the transition to bureaucratic controls in the agencies. His case study methodology, in contrast to both Gouldner's and Selznick's, is less emphatically ethnographic in character but instead displays an epistemological stance that draws more directly from American pragmatism. Blau rejects, for example, a clear demarcation between hypothesis making and testing and instead advocates an admixture of iteration between the two—an approach very close to Charles Sanders Peirce's notion of abduction.

World of the Office Worker

Like Gouldner and Blau, Michel Crozier is not typically recognized as an institutional theorist. However, in many respects his detailed case studies foreshadow key components of neo-institutional theory. Crozier anticipated the "cognitive turn" in neo-institutional theory, for example, with his view of organizations as "human constructs" developed half-consciously to solve problems of collective action. Crozier's work, similarly, presaged the neo-institutionalist view of organizations as both enablers and constrainers of human agency. He states that an organization creates conditions and games of cooperation—linked to specific problems, people, and situations—that serve to constrain its members' ability to act. Crozier's cognitive bent also anticipated neo-institutionalism's interest in logics of action. Crozier argues strongly for the adoption of a "restricted phenomenological viewpoint," so that researchers may reconstruct the intrinsic logic and interactions operating within the group.

Crozier's primary empirical context was whitecollar workers. His first case study was of office workers in the French Postal Bank. Later case studies were performed on white-collar workers in insurance, tobacco manufacturing, and a bank. He relied on multiple methods, including both qualitative and quantitative data, but emphasized interviews and direct observation. His method adopts a strong phenomenological approach in which he tries to understand the workers' taken-for-granted assumptions of their working world and, in so doing, to explore the ways in which deviant or aberrant behavior acquires meaning.

Selznick's, Gouldner's, Blau's, and Crozier's work typifies the central role that case studies have played in the early development of institutional theory. Collectively, their work helps to define the central concepts of both institutional theory and case study research, much of which has been lost in the transition to more contemporary organization studies. The studies are highly attentive to people's subjective interpretations of institutional effects, with considerable time and attention paid to how routine and relatively mundane productive activity becomes infused with meaning and significance. Their unit of analysis is inside the organization, but they are each mindful of the understanding that institutions (or institutionalized organizations) are populated and reproduced by people. They also each reflect assumptions that causality is complicated and can rarely be reduced to a single source.

Most important, perhaps, is the powerful presence of theory in these case studies. Theory appears as a significant influence both before and after data collection. All four researchers appear to enter the field with clear questions about Max Weber's theory of bureaucracy, and all of the case studies make powerful amendments and contributions to organization theory based on their empirical observations. Each study demonstrates an ongoing and sophisticated interaction between theory and data. Moreover, although these case studies seem to lack the ceremonial conformity to positivist methods that is so apparent in neoinstitutional case studies, they each impress on the reader a rigorous attention to triangulation of data sources, validity of data, and comprehensiveness in the design of the case study.

New Institutionalism

Although the theoretical division between old and new institutionalism may be somewhat overstated, there are important methodological differences. Most evident is a shift in the level of analysis. Early institutional theorists focused on how behavior inside a single organization changes in response to processes of institutionalization. Neoinstitutionalists such as Paul J. DiMaggio and Walter W. Powell adopt the organizational field as the primary unit of analysis and emphasize the influence of institutions as a network phenomenon; thus, considerable research has focused on the movement of common practices, templates, and structures across populations of organizations.

As a result, case studies are no longer the dominant methodology in neo-institutional research, having given way to large sample sizes and multivariate techniques. This is not to say, however, that case study methods have completely disappeared in institutional theory. Neither does it suggest that case studies no longer make significant contributions to neo-institutional theory.

This section reviews the ways in which case studies have influenced neo-institutional theory. It categorizes contemporary neo-institutional case study research in three categories. The first category retains the focus of old institutionalism on the boundaries between the organization and their institutional environments; that is, these studies maintain attention on the institutional embeddedness of organizations. The second category employs case studies as opportunistic means for studying extreme events. Unsurprisingly, these case studies contribute primarily to our understanding of institutional change. Finally, an emerging cluster of case studies attend to the role of power in institutional theory. Each of these categories is detailed in the remainder of this section.

Embeddedness

Case studies in neo-institutional theory maintain an analytic focus on the boundary between an organization and its social context. In contrast to the old institutionalism, however, neo-institutional case studies tend to more narrowly specify the causal mechanisms that produce institutional effects on organizations. This is quite different from old institutionalism, in which the case studies, largely in book form, enjoyed the freedom from the peer review process to explore detailed descriptions of the individuals, organizations, and contexts under study.

Case studies in neo-institutional theory, by contrast, emphasize the development of the causal mechanisms of constructs rather than the contextual descriptions of how constructs work. Several significant contributions to institutional theory have been made in contemporary case studies as a result. Petter Holm, for example, uses an extensive case study of the Norwegian fishing industry to develop an understanding of the relative role of agency in institutional creation. His detailed historical case study of institutional dynamics produced a model that describes institutions as "nested systems" produced in part by deliberate efforts to construct institutions and in part by unintended consequences of those actions.

Huseyin Leblebici and colleagues illustrate another important construct in neo-institutional theory developed through a historical case study of the U.S. radio broadcasting industry. The case identifies three core mechanisms through which institutional change is legitimated: (1) analogies, which are used to make sense of new phenomenona (i.e., radio is like a utility and should be regulated like a utility); (2) private contracts, which define property rights of the airwaves and patent protection of broadcast content; and (3) conventions, which define the rules and routines of the organizational field. The constructs in this case study extend and elaborate the previous findings of Paul M. Hirsch, who in a case study of the hostile takeover market between 1965 and 1985, demonstrates the importance of how actions were linguistically framed to legitimate previously marginal or even deviant business practices.

A third exemplary illustration of how neo-institutional case studies identify and elaborate causal constructs is Andrew Hoffman's analysis of the U.S. chemistry industry. This case study was particularly influential in demonstrating the ideational elements of institutions and change in organizational fields. His detailed description of the pressures to adopt environmental practices over a 45-year period contradict prior assumptions that organizational fields were constructed primarily around new technologies or economic structures. The study, arguably, bears more similarity to the old institutionalism in its reliance on thick description but ultimately adheres to the neo-institutional template in specifying and elaborating specific causal mechanisms.

Similarly, Royston Greenwood, Roy Suddaby, and C. R. Hinings offer a case study of the field dynamics associated with deinstitutionalization and reinstitutionalization of "appropriate" organizational forms. Specifically, they explore the role of professional associations in legitimating the adoption of multidisciplinary practices. The case study embraces a 20-year period (1977–1997), in which the researchers demonstrate how the accounting profession, led by the largest and most elite accounting firms, transformed the field from one dominated by traditional logics of professionalism to a field in which managerial logics prevailed.

Like Hoffman, Greenwood and colleagues adopt a longitudinal perspective rather than the distinctly historical approach used by Huseyin Leblebici and colleagues. All of these case studies, however, are distinct from early institutionalism in that they overlook the subjective interpretations of events by individual informants and instead use the case study method to identify causal mechanisms that operate at the interorganizational or field level of analysis.

Extreme Events

A central concept of neo-institutional theory is the notion that institutional change is often the result of an exogenous and rare event. Case studies are ideal for studying such events because they allow the researcher to focus on a narrow time frame that produces a rare or infrequent outcome. Case studies, thus, focus attention on the *dependent* variable in times of profound change. This is in contrast to most multivariate approaches in which the researcher must select a large number of observations that produce variability on the *independent* variables of interest during times of relative stability.

For example, financial researchers using quantitative methods seek to understand how financial markets work by looking at how independent variables impact stock prices under normal conditions. Rare events, such as the stock market crash of 1929, are removed from analysis because that rare event will distort the measures of causal effects of independent variables. For institutional historians, however, the stock market crash of 1929 offers an ideal opportunity to see the inner workings of market structures because the disruption incurred by

the crash tore the institutional fabric and exposed the inner workings of financial markets for all to see. A case study, bracketed in time by the event and focused explicitly on the event itself, offers a unique means of understanding how market institutions work.

There are a number of illustrations of how case research methodology, in extreme events, can be used to gain insight into processes of institutional change. At the microlevel, Stephen Barley's comparative case study of changes in the social order of hospitals after the introduction of new diagnostic technology is exemplary. Barley anticipated that old X-ray and fluoroscopy technologies would soon be replaced by computerized tomography scanning devices. He used the event as an opportunity to construct a comparative ethnographic case study between two community hospitals. His observations about the way in which interactive scripts contributed to change (or resistance to change) in the social structure of the medical professionals has become a classic insight into the microfoundations of institutional processes in organizations.

Roy Suddaby and Royston Greenwood studied another disruptive event: the introduction of a new organizational form in the field of business professions. In the late 1990s, accounting firms, which had quickly outgrown other professional firms both in the scale and scope of their activities, tested the jurisdictional boundaries of law by acquiring law firms. Large accounting firms legitimated their actions by promoting the necessity and advantages of a new organizational form, the multidisciplinary professional practice. Suddaby and Greenwood adopted a case study methodology to analyze the event by focusing, primarily, on publicly available documents used in two open forums designated to debate the merits and potential flaws of a new type of professional organization.

A third example of extreme case studies in neoinstitutional theory arises in Paul DiMaggio's historical analysis of the contested emergence of the public art museum in the United States. He identifies the emergence of the curatorial profession as a critical event that helped transition art museums from the private to the public sector. This case study not only covers a much longer time frame than either of the two case studies described earlier but also adopts a more definitively historical stance in terms of methodology, with primary evidence drawn from archival documents, both public and private, as well as the retrospective accounts of participants.

Power and Negotiated Order

Neo-institutional researchers have also successfully applied case research methods to analyze the role of power in highly institutionalized environments. There is a long history of using case methods to study power structures within and between organizations. Anselm Strauss and colleagues derive the term negotiated order from a series of case studies that focus attention on how different ideologies of psychiatry came to determine different organizational structures in two psychiatric hospitals. They determine that social order varied between the two hospitals for three reasons: (1) the composition of employees, (2) ideology of mental care, and (3) degree of integration of the hospitals with the broader community. The last two factors, ideology and integration, map onto two key constructs in organizational theory—that is, institutional logics and institutional embeddedness. Strauss's body of research demonstrates a useful integration between grounded theory methods (iterative and constant comparison between data and emergent theory, combining both inductive and deductive thinking) and the adoption of a case study research design.

Contemporary neo-institutionalism demonstrates a renewed interest in using case studies to understand the negotiated order of organizations. Tammar Zilber's case study of an Israeli rape crisis center offers a powerful illustration. She adopts an ethnographic approach that included 19 months of field work (at least 2 days per week) along with 36 semistructured interviews. Zilber supplements this with extensive historical and archival documentation. Her focus is on how actors interpret or apply meaning to their occupational roles, everyday routines and tasks, and the organization itself. She observes a shift in meaning from a strong feminist ideology during the organization's founding years to a more therapeutic interpretation at the time of the study. The case offers insight into how power structures within an organization become embedded in logics or ideological viewpoints that, over time, get institutionalized in organizations. Given Zilber's focus on actors' interpretations within the organization, her methodology bears more resemblance to old than new institutionalism.

Another, more macro-oriented illustration of how case studies can be used to analyze negotiated order can be seen in Nelson Phillips, Tom B. Lawrence, and Cynthia Hardy's study of interorganizational collaboration and the structuration of institutional fields. They studied a small nongovernmental organization (NGO) in Palestine, Mère et Enfant, which relied on collaborative relationships. Given that these collaborations were socially negotiated and constructed (not based on market or hierarchical mechanisms of control with takenfor-granted rules of engagement), the collaboration processes were readily observable. The unit of analysis is the collaborative relationship, with nine such relationships being studied. They adopt a study design that resembles a repeated experiment by studying relationships that vary in the level of collaboration and involvement. Data sources are interviews with NGO staff, interviews with representatives from the partner organizations, and organizational documentation. Using an iterative coding and analysis procedure, Phillips and his colleagues demonstrate that the outcomes of the NGOs' collaborative relationships (creation effects, strategic effects, and political effects) are a function of the level of involvement and the level of embeddedness. In explicating the microprocesses of social negotiation, they provide greater macrounderstanding of collaborative agreements.

Another way that case studies have been used to study the power effects of institutionalization, but that have been largely overlooked by organizational scholars, is Michael Burawoy's extended case method. The extended case method leverages traditional case methodology in two ways. First, it rejects the notion of the case study as an unobtrusive method and instead borrows a stance used by Erving Goffman that assumes that the best way to study habitualized practices and institutionalized social orders is to actively disrupt or challenge them. Second, it focuses the researchers' attention guite explicitly on the power structure of social fields and institutional orders. Institutional theory has been criticized for its relatively superficial treatment of power. The extended case method, however, as developed by Michael Burawoy, presents a useful opportunity for future institutional theory research. This approach is distinct in its rejection of the notion of the case study as an unobtrusive research method. Most qualitative researchers proclaim that a significant advantage of wedding a case study research design with ethnographic or grounded theory methods is that the researcher treads lightly or tries to not violate or interfere with the data through the process of observation. This is in contrast to more positivist methods, such as experiments or surveys in which the interaction between the researcher and the subject is often criticized as having too strong an effect and often contaminates the data as a result.

The extended case method rejects the notion of minimizing contact between researcher and subject. Instead, Burawoy argues that because institutional power becomes invisible through processes of social construction it is important for the researcher to intentionally provoke the subject by pointing out the contradictions and inequalities that become taken for granted in societies. This is similar to Erving Goffman's frame analysis, in which one method by which the researcher might understand negotiated order is by deliberately interfering with it. Although there are many illustrative examples of the application of extended case methodology in sociology, its application to organization theory, generally, and the study of institutions, more specifically, has been limited.

Critical Summary

It is illuminating to track the ways in which case methodology has changed in its application to studying institutions from early (or "old") to contemporary (or "neo") institutionalism. In the foregoing account, two basic shifts were emphasized. First, there is an *epistemological* shift, in which case studies are first used to understand how institutional effects are subjectively experienced and interpreted by actors in organizations to a more contemporary emphasis on using case studies to analyze institutional effects as objective cognitions, logics, or ideologies that are best understood through positivist methods. Second, there has been a distinct shift in level of analysis, away from an early focus on individuals inside highly institutionalized bureaucracies, to a contemporary focus on institutional effects that operate at the level of the organizational field. These shifts are mapped in

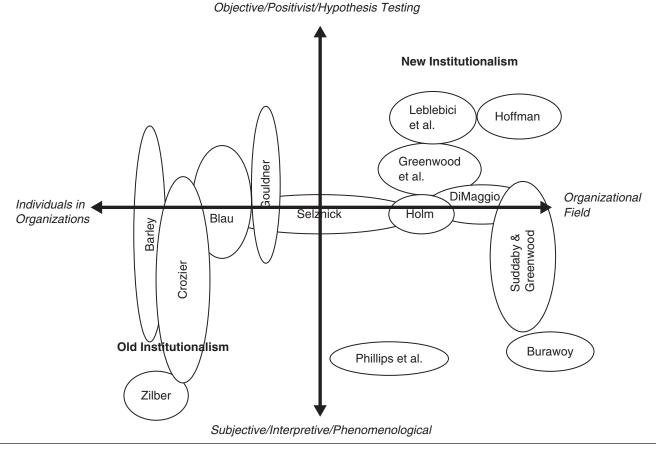


Figure I Changes in case study methodology from the old to the new institutionalism

Figure 1, which demonstrates that this shift in epistemology and level of analysis of case studies has been accompanied by other changes in the way organizational researchers now use case study methods. There has been a distinct stylistic change, from a reliance on rich description and a more openly discursive style of presentation to a much more positivist and analytical mode, or from an abductive mode of reasoning to a more clearly comparative/deductive model. A second accompanying change has been in the early researchers' assumption that the case study is a mere research design vessel in which the researcher could incorporate multiple mixed methods that might draw from quantitative, archival and qualitative approaches.

Perhaps the most significant change that accompanies this shift in understanding of how case methods should be used to study institutions, however, is the accompanying change in assumptions

about what institutions are and how they are constituted. Early approaches seem to view institutions as phenomenological constructs that are, in large part, the products of human belief systems and, as a result, much less stable or formal structures. This is reflected in the adoption of case study techniques that are much more subjective or interpretive in their underlying epistemology. Contemporary approaches seem to view institutions as much more stable, objective, and, ultimately, powerful phenomena. This is reflected in the more distinctly objective and positivist methods used to analyze them.

It is reassuring to note, however, that the most recent case studies of institutions, particularly those by Tammar Zilber and Nelson Phillips and colleagues, demonstrate a return to attending to the more interpretive elements of institutions. Phillips and colleagues, in fact, do so even though their analysis is distinctly at the field level. This reassuringly suggests that the positivism of neoinstitutional theory may well be moderated by the next phase of case studies of institutions.

Roy Suddaby and Lianne Lefsrud

See also Abduction; Ethnography; Extended Case Method; Phenomenology; Thick Description

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Instrumental Case Study

An instrumental case study is the study of a case (e.g., person, specific group, occupation, department, organization) to provide insight into a particular issue, redraw generalizations, or build theory. In instrumental case research the case facilitates understanding of something else.

Conceptual Overview and Discussion

Robert Stake classified cases into three categories: (1) intrinsic, (2) instrumental, and (3) collective. The intrinsic case is often exploratory in nature, and the researcher is guided by her interest in the case itself rather than in extending theory or generalizing across cases. In an instrumental case study the case itself is secondary to understanding a particular phenomenon. The difference between

an *intrinsic* and *instrumental* case study is not the case but rather the purpose of the study. In instrumental case study research the focus of the study is more likely to be known in advance and designed around established theory or methods. A collective case study involves the exploration of multiple instrumental case studies. Stake noted that a case study can be both intrinsic and instrumental in nature and that it is sometimes difficult to categorize a case as one or the other type. Researchers often have multiple research interests and thus engage in both intrinsic and instrumental case research. The key in both the intrinsic and instrumental case study is the opportunity to learn.

Similar to the intrinsic case, the instrumental case offers thick description of a particular site, individual, group, or occupation. The instrumental case is selected carefully, and formal sampling may happen before selection of the case to ensure that the case will yield fruitful findings pertaining to the research question. Qualitative research methods are best aligned with the philosophical underpinnings of the instrumental case, as described by Stake, where researcher, participants, and readers play a role in reconstructing experience. Jane Appleton contends that although he did not state it explicitly, Stake's approach to case study research is underpinned by constructivism. Stake notes that in qualitative case work triangulation (e.g., drawing upon multiple perceptions/sources of data) is a common means through which researchers increase the trustworthiness of their re-presentation of the case. Data analysis relies upon careful coding with a focus upon aggregate instances in the case report. The case report focuses less on the complexity of the case, as in the intrinsic case, and more on specifics related to the research question. Instrumental case study does not permit generalization in a statistical sense; however, it does attempt to identify patterns and themes and compare these with other cases. In this way, the researcher will use the instrumental case to explore in depth a particular phenomenon and then compare this case with other cases, so that the reader can see the transferability of the case findings.

Application

David Stein, Tonette Rocco, and Kelly Goldenetz use an instrumental case to explore how workforce

policies pertaining to older workers need to be modified to match changing demographics. In their instrumental case research design they test existing theory in a real site. They adopt Doering's theory on remaining, retiring, and returning to explain emerging themes from their data. They look to a large midwestern university in the United States to explore how the university is adjusting to changes in the labor force, whether employees over age 55 are remaining in or returning to the workforce, and the subjective experience of being an older worker in the university setting. The site itself did not guide their research; instead, it was a tool to better understand the subjective experience of aging workers. They use triangulation to ensure thick description and increase the trustworthiness of their findings. They examine organization-related documents (e.g., policies, press releases, media coverage) and the human resources' employment database statistics, and they conducted structured interviews with 12 university workers age 55 or older. Stein, Rocco, and Goldenetz note that generalization was not their intent; however, their research suggests patterns for future exploration of specific human resources issues pertaining to aging workers (e.g., strategies to provide better career advice for older workers, redefining flexible work arrangements for the aging workforce).

Ian Falk adopts an instrumental case research design to develop new theory on the context and characteristics of leadership. Falk employs a grounded theory approach to develop his fourstage model of effective leadership interventions. Falk's research design uses specific questions, as is common in instrumental case research, rather than exploratory or open-ended questions, which are more common in intrinsic case research. He also clearly states that he uses the case to understand something else, that is, effective leadership interventions. Falk looks to 12 sites of vocational education and training (VET) in Australia. He uses purposive sampling to ensure that the sites offer ample opportunity to explore his research question. Similar to Stein, Rocco, and Goldenetz, Falk triangulates his methods to increase the trustworthiness of the case findings. He uses organizational-related documents and a survey instrument as well as semistructured interviews with individuals and groups. His instrumental case of the VETs facilitates the development of a model that consists of four stages: (1) the trigger stage (situational need is identified), (2) the initiating stage (informal enabling of stakeholder–leadership transfer), (3) the development stage (formal processes of collective processes), and (4) the management and sustainability stage (reaffirming purpose). He demonstrates the applicability of this new theory through a thick description of one VET site. His use of the instrumental case facilitates the development of new theory and demonstrates the applicability of the new theory. He recommends further instrumental case research to test out the proposed model in different organizational sites.

Critical Summary

The instrumental case study is a tool that facilitates understanding of a particular phenomenon. In developing new theory or testing out existing theory, it allows researchers to use the case as a comparative point across other cases in which the phenomenon might be present. Stake is careful, however, in claiming that the instrumental case is generalizable. Case work does not fit well into conventional notions of generalization. Similar to the intrinsic case, the instrumental case should be primarily about the extension of experience. This is best facilitated through a qualitative research approach emphasizing richness rather than generalizability.

Gina Grandy

See also Constructivism; Generalizability; Intrinsic Case Study; Thick Description

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INTEGRATING INDEPENDENT CASE STUDIES

The integration of independent case studies within the same analytical framework is a way to expand understanding of a particular phenomenon. This integration is useful when independent studies have examined the same issue at different times or within different contexts.

Conceptual Overview and Discussion

The rationale for integrating independent case studies is similar to that of comparative case studies. The compared studies, however, are not part of a predesigned research strategy, and the comparison emerges from an ex post facto realization by independent researchers that the insights derived from their studies can be enriched by comparative analyses. The selection of case studies for integration follows the replication logic discussed by Robert Yin and Kathleen Eisenhardt.

When independent studies examine the occurrence of the same phenomenon at different times, their integration provides an opportunity to analyze how contextual changes, which are inevitable with the passage of time, shape the focal issues under study. In the first example, Prue Rains and Eli Teram independently studied the strategies used by an institution for youth to control admissions and recruit desirable clients during two different historical periods (Rains, 1984, 1985; Teram, 1986, 1988). Because both studies concluded that the institution was more concerned about its own interests than about the needs of its young clients, the juxtaposition of the strategies used during different periods of time makes this argument more powerful and persuasive. Given the relative subtlety of organizational self-interests in Teram's study, and the more visible and direct pursuit of organizational interests studied by Rains, this comparison was particularly useful.

Independent case studies can also be effectively integrated when they examine the same phenomenon within different contexts. The variations on the same theme across contexts broaden the generalization opportunities provided by a single case study. As demonstrated in the second example, Gerald Erickson and Teram integrated their independent examinations of the review of institutional placements of children in two Canadian provinces: Ontario and Québec. With different child welfare legislation, these provinces established very different systems for the review of institutional placements. By integrating their case studies, the researchers were able to argue that, notwithstanding their differences, both review mechanisms were designed in ways that inhibited the expression of conflict and disagreement that is essential for meaningful review processes. The construction of the arguments around more than one case broadens the scope of readers' critical reflections on other institutional review systems.

Application I: Examination of Same Phenomenon at Different Times

The Independent Case Studies

Rains conducted a historical case study of the Boys' Farm and Training School in Québec, Canada, using the institution's archival material, supplemented by archives of other institutions for youth-in-trouble and government documents (Rains, 1984, 1985). Her exploration of the history of this institution from 1907 through 1970 was informed by critical histories of social control institutions, which were salient in 1970s sociology. She identified four prolonged population crises that were experienced by the Boys' Farm, and her core analysis focused on the ways its directors managed these periods of decline and ensured the survival of the institution. The unit of analysis was the Boys' Farm.

Teram's (1986, 1988) case study of the network of organizations working with children and youth in English-speaking Montreal in the early 1980s originated from an interest in comparing interorganizational relationships at different hierarchical levels of human service organizations. With the network as the unit of analysis, his core arguments focus on the selection of "good" clients by the

institutions in this network and the interorganizational structures and processes that facilitated and maintained this selection. The Boys' Farm, now known as Shawbridge Youth Centres, was one of these institutions.

Integrating the Two Studies

Although Rains and Teram were aware of each other's work, their case studies developed independently, were designed very differently, and were informed by different theoretical perspectives. Upon the completion of their research, they realized that the common themes of their studies could be developed more fully and argued more persuasively by integrating them under one analytical framework. The integrated analysis examined the evolution of strategies used by the Boys' Farm (Shawbridge Youth Centres) to acquire control over admissions in the face of changing public policies concerning the disposition of youth in trouble in Québec.

The Boys' Farm strategies in the early period clearly and directly expressed the institution's interest in expanding its clientele while protecting its orientation toward reforming "bad boys." The institution's strategies included the following: magazine ads addressing parents having difficulty with their children, lobbying for the introduction of indefinite and longer sentences, and opposing the admission of older boys. These strategies were broad in the sense that they only occasionally focused on individual clients. Although the Boys' Farm confronted the court regarding the admission or discharge of particular boys, the institution preferred to focus on generic issues, such as age or opposition to the establishment of locked units within the institution. The Boys' Farm did not try to mask these strategies as concern for the best interests of delinquent boys. For example, the board's unwillingness to admit older boys was persistent in spite of its knowledge about the changing needs of youth, appeals from its own staff, and the understanding that this policy increased the number of boys sent to adult prisons.

In contrast, later client recruitment strategies were more subtle, focused on the case-by-case selection of clients, and were masked by clinical language and the "best interests of clients" rhetoric. The shift from generic client recruitment strategies

to strategies that focused on specific characteristics of clients began in 1960. In an attempt to control the admission of emotionally disturbed clients, the Boys' Farm introduced a 3-month trial period as a method for rejecting clients who did not respond to treatment. The concept of individual assessment emphasized the suitability of individual clients to institutional services and was the first step toward the differential treatment ideology that eventually legitimated institutional control over admissions. Although the court, with its emphasis on legal and jurisdictional aspects of client processing, continuously resisted the institution's selective admissions policy, individual assessment was consistent with the orientations of social service agencies and professionals who took control over the disposition of youth in trouble in the 1970s.

With this change, Shawbridge Youth Centres was now operating in an environment that emphasized professional self-regulation and autonomy. This was a natural setting for reducing the visibility of client recruitment strategies by masking organizational interests with clinical language and processes that emphasized the best interest of individual clients. These processes were embedded within an interorganizational network with institutional arrangements that suppressed the open expression of conflict (see the following section).

The effectiveness of the subtle and inconspicuous case-by-case client recruitment strategies are illuminated against the backdrop of earlier, bolder, and less successful strategies used by the institution. Contradictions between the strategies used in different time periods are useful for making the interests of Shawbridge Youth Centres more transparent. Thus, for example, the institution not only reversed its historical opposition to the establishment of locked units but also insisted that all youth admitted to its programs must have a court order (under provincial policies, youth could have been admitted to all institutions as voluntary clients). Given the Boys' Farm confrontations with the court over admissions and discharges, this "invitation of court control" may appear contradictory; however, considering that any court order for admission was subject to approval by Shawbridge Youth Centres, based on its assessment of the youth, this policy made perfect sense because court orders were useful for controlling clients.

The integration of Rains's and Teram's separate studies provides a more comprehensive and comprehensible account of one institution's client recruitment strategies. It also provides opportunities for comparative analyses that are fundamental for theory-building from case studies.

Application II: Examination of Same Phenomenon Within Different Contexts

The Independent Studies

Teram's analysis of the selection of "good" clients by institutions for youth was accompanied by an analysis of the watering down of the mechanisms established by the province of Québec to review the institutional placements of children and youth. This review process presented a potential threat to the ability of institutions to hold on to the good clients they recruited, as discussed in the previous section. Central to this review process was the regional Director of Youth Protection (DYP), who was given a wide range of authority to protect the welfare of children under his or her care. With the assistance of social workers who acted as his or her delegates, this official monitored the programs in which children were placed as well as the progress they made. Together, they had the authority and information required to review and alter the treatment plans developed by residential programs. The case study examined how this review process became meaningless within two different structural arrangements.

Erickson chaired one of the regional Residential Placement Advisory Committees (RPAC) mandated by the province of Ontario to ensure that children were placed in appropriate residential programs, that their needs were met, and that potential risks to their welfare were minimized. These reviews were conducted within a short time frame subsequent to the placement. The RPAC's authority was limited to making recommendations; it had no enforcement authority, and the residential programs were not required to report back to the committee as to the disposition of the recommendations. The regional RPAC, chaired by Erickson, was in charge of reviewing placements in 10 residential programs. His observations of the committee's work over almost 2 years led him to conclude that this process made very little difference for the children it was intended to protect.

Integrating the Two Case Studies

After discussing their independent observations, Teram and Erickson realized that although Québec and Ontario's review mechanisms were very different, both systems provided better arenas for ceremonial rather than genuine reviews of children's placements. Following John Meyer and Brian Rowan's seminal article on institutionalized organizations, they proceeded to frame the review processes as ceremonies designed to create the myth that children's rights are protected, while allowing institutions to carry on their routines without external interferences.

Teram described two structural arrangements under which the DYP's delegates operated. In Shawbridge Youth Centres, the delegates were the institution's own social workers, from whom it could demand and expect loyalty. Shawbridge's management and social workers were candid about their belief that the institution must present the DYP and the court consensus reports on the progress made by clients and the recommended treatment. Otherwise, they argued, children who had access to these reports were bound to be confused by the expression of conflicting views. To eliminate the discomfort experienced by social workers, who sometimes had to present in court decisions they opposed within the organization, the institution sent to court the residential program coordinators, because they were the originators of the disputed treatment plans.

The structural arrangements in Youth Horizons, the second main institution in the network, were different. Here, the social workers who acted as the DYP's delegates were not employees of the institution but rather worked for the social service center where the DYP's position was held. Thus, they were not constrained by the demand for loyalty to the institution; instead, they were bound by the sense of belonging to the residential teams to which they were assigned by Youth Horizons. The social service center's management was well aware of the risk of social workers' co-optation and recommended a model of assigning clients as they come, which was the practice at Shawbridge. Although these recommendations were discussed, they were never implemented. Thus, Youth Horizon's teamwork structure continued to generate ceremonial external reviews of children's

institutional placements, similar to those observed in Shawbridge. Here, however the DYP's delegates watered down the review process because of the dynamics of teamwork: the diffusion of role differentiation, the need to be part of a group, the interdependencies and exchanges between team members, and the emotional and social consequences of resorting to the DYP's authority when they disagreed with the institution's treatment plans for a particular child. According to the social workers, the message they received from the DYP indicated that the social service center was not interested in conflict with the institution.

Erickson's participant observations of the review process in Ontario identified a similar avoidance of conflict by the members of the review committee. Most of the committee members represented the dominant view of the system that generated the placements they were reviewing, with one third of the committee members representing agencies that provided placements for children. These service providers knew that by questioning the appropriateness of placements in other agencies they risked being criticized when a placement in their own agency was under review. The rare objections of children to their placement were framed as their reaction to the unknown. The written accounts of institutional placements presented to the review committee uniformly led to the conclusion that the placement under review was warranted and necessary. Of the 50 cases reviewed over the initial 18 months of the committee's operation, only 3 were considered inappropriate. These rare outcomes were met by strong written responses from the placement agencies and did not effect any change in the placement.

The integration of the Ontario and Québec studies illuminates that although the expression of conflict and disagreements is an essential element of effective review processes, it can be inhibited by a variety of organizational and interorganizational dynamics. These variations expand the critical reflection on review processes in other similar and dissimilar child welfare systems.

Critical Summary

The integration of independent case studies that examine the same issue during different periods of time, or within different contexts, is a way of engaging in comparative analyses that are essential to the development of theory in case study research. Following the logic of comparative case study design, such integrations can provide important insights by expanding the scope of the analyses and generalization afforded by each of the integrated studies standing alone.

Eli Teram

See also Archival Records as Evidence; Comparative Case Study; Institutional Theory, Old and New; Juncture; Replication; Theory-Building With Cases

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Interactive Methodology, Feminist

Interactive methodology that is based in feminisms is designed to empower and enhance participants

so that knowledge and its production are democratized and shared. Of course, methodologies are not gendered, and interactive approaches have been used by a wide array of researchers, some of whom align themselves with feminist standpoints and some who do not. The set of practices drawn upon for feminist interactive methodologies are designed to create transformation of the civic sphere, specifically to achieve gender equality. Collaborative practices such as participatory decision making, open dialogue, optimal participation, and representation of all relevant parties are some of the hallmarks of this approach. The goal is to co-create knowledge with and within the community so that it can be used to effect real change in participants' lives and in their community.

Conceptual Overview and Discussion

Interactive methodologies have a broad disciplinary and sociohistorical basis. Within community development, liberation theology, and neo-Marxist approaches more than a century of documented projects have used action research. Within the social sciences, Kurt Lewin's 1946 work has been cited as the beginning of action research or at least the popularizing impetus for it. In the past few decades, a growing movement of socially conscious researchers have been using the interactive paradigms to address social justice inequities that fracture communities along gender, race, class, ability, sexuality, religion, and other categories of social identity.

There are multiple feminisms that have nuanced variations on the theme of equity, and each has used interactive methodologies effectively. Thus, any of the feminist approaches to interactive methodology could be used to guide our thinking about how to proceed with an interactive methodology. The common theme among all their approaches, and what all will agree on, is that the context for the research is based within women's experiences within their communities. All approaches will instill collective and shared ownership of research projects, and the research is conceived as cyclical. The cyclical aspect of these approaches is that community-led research in the service of social justice will be rooted in ongoing commitment to change the material conditions of participants' lives. Relevant questions lead to systematic community-based inquiry that creates action, which brings about further questions, further inquiry, and further action on social justice. In a paradigmatic sense, these core thematic elements to interactive methodologies are actually part of a spiral on deepening inquiry. As participants think, research, and act, they continue to reflect on their situation and create further research questions. This cycle has been labeled by a number of theorists within different disciplines. A solid discussion of this can be found in *The Action Research Reader* (Kemmis, Henry, Hook, & McTaggart, 1981).

Interactive methodologies build community participation into the research from the outset. Community participants help to frame the basis for the inquiry. They have meaningful input into the research questions, implementation, and process. They contribute to the interpretation of the findings. The interpretation of findings will include a community-based analysis of the social issues and a focus on praxis. Praxis is located in terms of what can be done within the community to create change in the identified social problems. The definition of what can be done within the community will often have a personal as well as a political function, and it will usually involve multilayered approaches. Programs of action that address personal as well as systemic issues are a common outcome for interactively based research projects.

Methodology is distinctive from method. Methodology is an approach to research that is connected to an underlying epistemological standpoint; *method* is the technique or set of techniques used to accomplish the research. Interactive methodologies, then, are primarily about commitment to a set of philosophical principles that foreground participants and their lived realities. This moves this discussion into the realm of epistemology and ontology. Ontologically, research comes from a perspective of what can be known. Epistemological questions orient around ontology by answering how we can know. These fundamental ontological and epistemological assumptions underlie all research paradigms. Interactive methodology is intertwined with these fundamental assumptions. Method is not. The tools and techniques that comprise the method can be applied across a wide ontological continuum, from naive realism, to critical realist realms, and through to social constructionist and radical relativist realms. This is not to dismiss the assessment of methods to ascertain how appropriately they reflect the research assumptions about epistemology. Some ontological standpoints are more amenable to certain methods than are others, and the selection of the method should align with the epistemological frame for the research. The point is that method does not affix to any one epistemological perspective; methodology on the other hand, does. The approaches to research that constitute methodologies are attached to philosophical commitments about the nature of knowledge.

Most often, interactive methodologies align toward the social constructionist end of the continuum because of their emphasis on the co-creation of knowledge and what it means in the context of changing social praxis. A common paradigm is the *participatory action research model*. Other variations on this theme include collaborative inquiry, emancipatory research, action learning, and contextual action, to name a few. They all hold participants as the core of the co-creation of knowledge for a community based action purpose.

Interactive methodologies gather the input of multiple stakeholders with a focus on collaborative processes for this input. The value of gathering a broad spectrum of inputs is that the research is enhanced with these multiple views of the research question. A comprehensive approach to the research question also implies that the findings will resonate with a number of stakeholders and be more likely to make an impact through this multipronged approach to the research. The democratic input of multiple stakeholders also lends confidence in the research findings. This comes from confidence in the process and confidence in the knowledge exchange within and across the multiple perspectives of the research question. This will translate into confidence in the utility of the work and enhanced confidence in the uptake of the work, especially for policy implications and impact.

Interactive methodologies are undertaken by researchers with a philosophical commitment to pragmatically grounded research that has social meaning and relevance. They frame research as a tool to transform the civic world. This commitment to praxis and social change is central to the philosophy of interactive methodologists.

Application

In the context of case study research, interactive methodologies require the research to be a social process. The researcher becomes an animator of communication and knowledge production among the stakeholders. The interaction is a negotiation of what is deemed important to know and what the focus for the research should include. Interactive methodology means that the participants contribute to what is deemed valuable to gather and how to gather it. Empowerment of participants and their community is a guiding vision for the research. Part of the reflection on the project should be an assessment of ways the research fulfilled this goal and ways it did not. Empowerment is not an end state but a process, and every project will contribute to our understanding for how to do it better.

Although not everyone involved in the project can, or even must, participate in every aspect, participation is in keeping with the philosophy that everyone has something of value to contribute. It is fully expected in community-based research that some people will participate in ways that others will not. The key here is that barriers to full participation are addressed. For example, ensuring a critical mass of participants from different sectors will help to bolster confidence in contributions. The research teams cannot assume optimal participation; it must be a conscious and reflective process. At a minimum, the research should provide caregiver subsidies for participants who have child, elder, or dependent care; travel subsidies to address distance barriers; and any other material accommodations or considerations that might prohibit optimal participation by various sectors. By stating up front the value of a broad base of community members who feel empowered to work on the collective research project and remaining open to sustaining and improving participation across the project, the research team optimizes participation.

Critical Summary

Interactive methodologies rooted in feminisms are designed to work with participants in their communities on research questions that have significance to them. The methodologies are also connected to empowering participants to identify and create systems of action so that they can change systemic oppressions. Working with and within community to challenge patriarchy in all its guises is an ongoing emancipatory project that stays close to women's lived experiences. As such, the work also aligns well with consciousness raising as part of the research outcome. Working with women to articulate personal truths and sharing those truths within a collective is a powerful process to enable communities to create and sustain action for social justice.

Colleen MacQuarrie

See also Action-Based Data Collection; Liberal Feminism; Poststructuralist Feminism; Practice-Oriented Research; Praxis; Radical Feminism; Subjectivism

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INTERCULTURAL PERFORMANCE

Intercultural performance in general refers to performance/theater that consciously or intentionally incorporates elements of performing traditions from disparate cultures as an approach to artistic creation. Text, language, performing technique, and casting and staging conventions may be taken out of their original contexts for inventive exploration. Presenting the plays of Shakespeare using the performing traditions of *kathakali* of India is an example.

Conceptual Overview and Discussion

In her study of intercultural performance, Erika Fischer-Lichte and her colleagues observes that the adoption of elements from foreign theater traditions often operates as an instrument to bring change in the aesthetic and sociocultural functions of one's own theater: the inclusion of foreign elements prompts rethinking and remaking of theater and enables theater to comment more critically, leveled through the foreign elements, on the immediate sociocultural issues of its society. The inclusion of foreign elements, in other words, may revitalize one's own theater and augment its artistic and critical calibers. The inclusion of foreign elements, Fischer-Lichte et al. cautions, also involves a political aspect concerning the power relationships between cultures, especially between those of the former colonizing cultures and the colonized cultures, that may affect the ways in which the foreign elements are derived. The study of intercultural performance therefore needs to heed not only its motivations and end results but also its political implications.

Regarding the process of making intercultural performance, Fischer-Lichte et al. draws on the theory of productive reception and proposes that the ways in which foreign elements are incorporated depend on one's own artistic and sociocultural needs: One chooses to receive the foreign elements in ways that would effect productive change in one's own theater and society. Patrice Pavis, in detailing the stages and factors that determine the reception and transformation of the foreign elements, develops an hourglass model in which elements of the source (foreign) culture are to pass through a series of filters before their final appearance in the target (one's own) culture. The filters, in a sense an elaboration and extension of the needs Fischer-Lichte and her colleagues identifies, include artistic filters, such as goals of the adaptors and choice of a theatrical form, and sociocultural filters, such as sociological and anthropological modeling in the target culture. Both models outline a unidirectional exchange and suggest a clear separation between foreign cultures and one's own cultures. Pavis also envisions a linear progression process through which foreign elements are gradually transformed.

Finding Pavis's model unable to accommodate alternative and more collaborative forms of intercultural exchange, Jacqueline Lo and Helen Gilbert propose a two-way, dialogic model in which two cultural sources form a continuum, with the target (inter-)culture situated somewhere between them. The unfixed position of the target (inter-)culture is to reflect how and where the exchange process takes place; the influences of globalization, the space for negotiation, and the possibility of power disparity inform a possible multidirectional dynamics in the process of intercultural exchange.

As for the eventual outcomes of intercultural performance in relation to the understanding of foreign theater traditions and cultures, Fischer-Lichte et al. question whether such an understanding exists, because foreign elements are used as a tactical strategy toward fulfilling one's own artistic and sociocultural needs. Marvin Carlson proposes seven stages of relationship between the culturally familiar and the culturally foreign in which foreign elements may be assimilated into, blended with, or alienated from the target culture, depending on how the intercultural exchange is conducted. The foreign elements therefore may be understood in varying degrees of recognition, ranging from as an inherent part of the target culture to highly marked entities of difference. Pavis, in acknowledging the richness and variety of intercultural performance, further proposes a selection of subcategories—intercultural theater, multicultural theater, cultural collage, and so on—to differentiate further how in each case the foreign elements are understood and treated. Her definition of intercultural resembles Carlson's idea of assimilation; her concept of collage corresponds with Carlson's notion of alienation. Lo and Gilbert also use subcategories transcultural theater, intracultural theater, and extracultural theater—to distinguish within the practice of intercultural theater. Their subcategories, however, are defined in relation to whether cultural boundaries are transcended (as in transcultural) or marked (as in intracultural and extracultural).

A very different approach to defining and studying intercultural performance, as taken by Una Chaudhuri, is to think through the concept of interculturalism and identify theater forms that live its definitions. Instead of looking at performance/theater practices that intentionally explore

the difference *between* cultures, Chaudhuri recommends the drama of immigrants who experience the difference of cultures *within* an ongoing, lived intercultural process. Intercultural performance founded upon daily, personal intercultural exchange as proposed by Chaudhuri differs very much from those based on intentional, forced intercultural activities. Lo and Gilbert identify a type of crosscultural theater they call *migrant theater*, which appears to correspond with Chaudhuri's drama of immigrants but is beyond their discussion of intercultural theater.

Application

Two examples of intercultural performance from the late 20th century have been extensively discussed: (1) Peter Brook's production of the Indian epic *The Mahabharata* (1985–1988) and (2) Tadashi Suzuki's unique method of acting training and his directing and staging of Greek tragedies (1970s–1980s). The critical perspectives and theoretical frameworks discussed earlier offer various readings and interpretations of these intercultural works.

Brook's The Mahabharata aspires to transcend the particularity of specific cultures in quest for the universality of human experience. The Indian epic was rewritten as the great history of mankind; an international cast of performers was chosen to enact the story under Brook's direction. It is an example of transcultural theater, in Lo and Gilbert's definition. Aesthetically, the production carried on Brook's tireless search for new ways of making theater. Socioculturally, the production did not attend to issues specific to Brook's contemporary British society; it sought to speak for universal experience instead. Politically, Bharucha and others criticize Brook's method of taking and treating the Indian elements as a unidirectional, imperialist approach, because he is reported to have focused solely on his production needs and neglected proper communication and respect for his Indian hosts, and the rewriting of the Indian epic is considered distorting and flattening. The production toured internationally and successfully, yet Brook's production concept, goals, and choices—all justifiable either for the reason of creative license or productive reception—appeared unable to bring to the audience a better understanding of India and/ or Indian culture.

In Japan, Suzuki has developed a unique method of acting training: powerful stamping, rhythmic gestures, and excruciating body positions that aim to physicalize acting and objectify the actor's self. The disciplines, postures, and movements derive from traditional theater forms such as noh and *kabuki*, yet the theoretical concepts are informed by both Japanese and Western thought. In directing and staging Greek tragedies, Suzuki creates jarring juxtapositions of past and present, Greece and Japan, such as Marlboro advertisements in a Greek temple or Japanese pop songs sung in Troy. His works are examples of cultural collage, in Pavis's definition, that deliberately (mis)match dissimilar cultural materials for unexpected and surrealistic stage representation. Aesthetically, Suzuki's acting training and directing break new ground for theater practice in Japan. Socioculturally, Suzuki intends to comment on the plight of postwar Japan through the Greek stories. Politically, Suzuki's reinterpretations of Greek tragedies belong to the postmodern avant garde movements that aspire to deconstruct Western canonical texts in order to present the cultural fragmentation, dislocation, and confluence of the postcolonial condition. Suzuki's acting training and works have appealed to many theater practitioners. Actors, Japanese or non-Japanese, participate in his workshops; international theater festivals are held at his theater base in Japan; and he is invited internationally for training and collaboration. Yet it is nevertheless questionable whether Suzuki's staging of Greek tragedies offers his audiences better knowledge of Greek culture and theater.

Critical Summary

The preceding two historical examples represent only certain types of intercultural performance. The various terminologies coined by Pavis and by Lo and Gilbert demonstrate their attempts to grasp its scope and diversity by categorization. Other notable examples include the works of Ariane Mnouchkine, Robert Wilson, and Eugenio Barba. The transformation of the foreign elements may be measured by the new qualities that they acquire throughout the intercultural process, not just by how far they depart from their original cultural roots. Chaudhuri's alternative approach to intercultural performance highlights the importance of perceiving culture as present and immediate expe-

rience, which also asks for a critical rethinking of the current scholarship on intercultural performance in its vocabulary, perspective, approach, and theoretical framework.

Dongshin Chang

See also Dramaturgy; Imperialism; Othering; Postcolonialism; Praxis

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Interpreting Results

Case study research often inquires into the experience of individuals; small groups; or larger, more complex groups or organizations. This entry outlines a process for analysis and interpretation when cases are individual participants and then addresses some modifications for larger, whole, complex entities. It begins by presenting general principles and assumptions that serve as the rationale for the processes outlined.

General Principles and Assumptions

In qualitative research, one's object is to learn the thoughts and feelings behind the actions of participants. In other words, a researcher endeavors to grasp the perspectives of a participant in order to appreciate how the participant's actions and feelings can be understood as being reasonable and coherent. Such an interpretive undertaking requires attention to whole–part relationships in order to discern the meaning of particular experiences for participants. The particular experience of interest to a researcher must be understood as part of the larger whole of the person's or organization/institution's life. A researcher must have an understanding of the whole in order to perceive the role or significance of the part.

To provide opportunities for depth of data collection and analysis, case study research often entails working with as few as three or four participants in case studies of individuals. A researcher may interact with and/or observe a participant over time if the participant's experience of a current activity is being studied. Alternatively, a researcher may wish to learn about how participants have experienced events that have already occurred. In this case, there are typically as many meetings or interviews as are needed to establish a relationship and create opportunities for participants to recall, share, and reflect on the experiences of interest. Because experience can be communicated only through story, it is important for interviews to include questions that invite anecdotes or stories. Ideally, a researcher will also use the interview opportunities to learn about the context of the experiences of interest. Context refers to both the specific sites in which experiences occurred and to a more holistic appreciation of how participants experience themselves or their lives more generally. Such contextual backdrops are important for informing interpretation of participants' specific comments or stories regarding the experience of interest to the researcher.

Although qualitative researchers often wish to develop insights that can be expressed abstractly, they must begin by developing a storied understanding of the experiences they wish to theorize. It is *through the process* of working from all transcripts and field notes to write narrative analyses that a researcher's own storied understanding of participants' experiences crystallizes. Narrative analyses are explanatory stories crafted through the gathering and analysis of events and happenings to form a plot. Stories show cause and effect

and human motivation, and they teach the reader how to feel about what happens in the story. The narratively written case studies, already a result of much analysis and interpretive work, are then analyzed for patterns, themes, or insights that can be expressed abstractly. In reporting on the research the narratively written case studies render the abstractly stated findings persuasive and can afford the study such attributes as verisimilitude, praxis, ethic of care, and multivoiced texts.

Writing a Case Study for an Individual Participant

The following is a general framework for writing an individual case study:

- An introduction or narrative portrait that offers a holistic sense of the person
- An introduction to the site(s) of the experiences of interest
- Examples of the experience of interest for the research
- The participant's expressed views about the experience

Writing an introduction to the person in the form of a narrative portrait requires examining all transcripts, notes, and artifacts with the following questions in mind.

What do the person's anecdotes, comments, and actions reveal, reflect or suggest about

- What is important to him or her (values, aspirations, motivations, likes, dislikes, hope, fears, interests, goals)?
- Claimed social identities?
- Who significant others are and how the person positions her- or himself in relation to them?
- The role or significance of family, friends, sports, other pastimes or interests, school, or work in the person's life?
- His or her preoccupation with the past, present, or future?
- Favorite places (sources of security, belonging, social support, positive identity, restorative support, or creative self-development)?

A rich introduction to the person provides a contextual backdrop that can inform interpretation of the significance of material reported in the other parts of the case study. For example, both the researcher and the reader are better able to appreciate the significance of the participant's comments about the experiences in the light of what was learned in the introductory narrative portrait.

Thorough writing of each of the parts of the case study enhances the opportunity to discern critical elements or key dynamics in the experience and to identify patterns or differences across cases. The first draft of a written case study may be quite lengthy. This lengthier first draft is a necessary accomplishment before writing a briefer one that highlights and foregrounds key dynamics or patterns.

A master's thesis illustrating this approach was completed by Jillian Sawler at the University of Alberta. Working with five youths who had physical disabilities, Sawler investigated the meaning and significance of physical activity, sport, recreation, leisure, and/or exercise within the context of their overall life stories. Sawler learned that the sites or places of physical activity also had to meet the youths' needs for security, social affiliation, and creative expression and exploration.

Writing a Case Study of a Complex Group or Organization

When researchers are interested in understanding what happens with a new program or practice or the effects of an event or change, they will often undertake case studies of organizations or places that experience these. In such studies researchers are typically interested to learn what happens, how it happens, and why it happens. Understanding why the experience of a program or change unfolds as it does requires contextual knowledge. Thus, like the case study outline for an individual person, interpretation of a case study of a place or organization benefits from a rich narrative portrait as an introduction. Awareness of a group's culture, values, resources, routines, relationships, goals, challenges, and other current history can help a researcher make sense of what happened and why. This contextual knowledge supports the writing of a case study story that shows cause and effect, as well as human motivation, and that lets the reader know how to feel about what happened.

In her research on distance education in Queensland, Australia, Nicole Green crafted

narrative portraits of the mothers who served as tutors, the children, the everyday events of the distance education program, and the families' everyday lives outside of the program. Together, these narrative portrayals support understanding of how the distance education programs were unfolding and being experienced and why.

Critical Summary

Analysis and interpretation of case study data entail the crafting of narratively written portraits of participants or stories of places/organizations and their characteristics as a backdrop for appreciating and interpreting the coherence and significance of reported experiences and responses to these. Analyses of patterns or key dynamics should be attempted only after a storied understanding has been achieved through the writing of narrative case studies.

Julia Ellis

See also Collective Case Study; Depth of Data; Multiple Sources of Evidence

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Interpretivism

Case study research is often associated with an emphasis on the importance of interpretation of human meaning. The assumptions concerning human meaning characteristic of the interpretive paradigm in social science (and the meta-paradigm in philosophy) are central to case study research. In most of the social sciences, other than economics, there are various kinds of interpretive perspectives focusing on meaning. (Economics historians also emphasize interpretation of meaning, but econometricians rely more on statistical modeling that sidesteps the problem of human meaning.)

Conceptual Overview and Discussion

The motivation for focusing on a case is in part the need to examine that case in detail. The details are important because, it is argued, we can fully grasp human meaning only when we have a detailed account. When we move to an analysis of variables and factors that avoid comprehension of the meaning of a situation or a process, then we cannot recover meaning. The goal of case study research is to grasp the totality of a situation or process. Hence, the study of a single case or a few cases allows for description of details of social action by individual social actors or collectivities, large and small. Such details are often deemed idiographic aspects of phenomena because we are trying to "graph" the unique (Latin idios) features that appear to us through the five senses, in particular visual observation. An idiographic observation attempts to make sense of a situation or a process. In the arts and humanities, interpretation is also central. For example, in an avant garde novel written by Virginia Woolf or James Joyce we are given information in the form of detailed streams of consciousness, with relatively little outside interpretation by a narrator, and we are therefore required to read between the lines in order to grasp what the narrative is about. A novel like Proust's Remembrance is the epitome of an idiographic approach. However, even a seemingly straightforward novelist, such as Mark Twain, hints at deeper meanings. A key problem in trying to comprehend interpretivism in social science is the question of how to differentiate social science from the arts and humanities. How is a case study scientific? Is the phrase *social science* merely an empty use of the word *science*, or are there really three categories of knowing: (1) hard science, (2) soft science, and (3) the arts and humanities?

Social Science Interpretation

The interpretive paradigm is used in psychological research, where it is often associated with a humanistic approach. The essence of the term interpretation denotes an emphasis on the importance of interpretations of human meaning. It connotes an opposition to the kind of reductionism whereby all discussion of meaning is avoided as much as possible. Behaviorist psychology was at one time a leading anti-interpretive perspective, but strict behaviorism has lost favor among most psychologists and social psychologists. The notion that we can remove human meaning from the scientific results of psychological research is no longer the majority opinion, although there are still psychologists who reject any kind of interpretivism as "merely" humanistic or folk psychology.

Symbolic anthropology is a subdisciplinary approach within cultural anthropology that emphasizes case study research. It has a particular concern with meaning, in particular with meaning as contained in symbols and rituals. Biological and physical anthropology, on the other hand, do not follow an interpretive paradigm. It is true that a certain degree of "interpretation" of genes, cells and bones is necessary, but such comprehension of the data is not what is meant by *interpretation* within an interpretive paradigm.

In sociology, the question of interpretivism is especially important because many structural approaches that stress the emergent qualities of systems tend to emphasize the need for large bodies of quantitative data. Quantitative data, however, often do not allow for an understanding of nuances of the human condition. A survey of public opinion with close-ended questions results in probabilistic relationships between variables but does not clearly provide an examination of the deeper aspects of interaction among members of any collectivity, great or small.

In political studies there are both a behaviorist and an interpretivist strand; however, the term political science does not automatically point to a more reductionist scientific approach to political phenomena. Some political economists follow an interpretive paradigm, and others attempt to develop broader generalizations that ignore interpretation of human meaning. Modern neoclassical economics tends to ignore case studies in favor of abstract reasoning, where econometric modeling or similar kinds of statistical techniques based on calculus become the ideal goal.

Methodology and "Method"

We can distinguish between methodology in the broader, more philosophical sense and methodology as a covering label for specific methods and techniques. The methodological choices researchers make have implications for the methods and techniques they are most likely to use in conducting any research project. There are important methodological (i.e., ontological and epistemological) implications of an emphasis on interpretation, and those affect the specific methods associated with case studies. There are also important implications with regard to social activism. Many interpretive social scientists are primarily interested in studying everyday life in their own societies and their own generation, but interpretivism can extend to other times and places as well.

There is no symbolic sociology as such, but a similar approach can be found in symbolic interactionist sociology and various other qualitative approaches that depend at least in part on case study observation of phenomena. Those include phenomenological sociology, ethnomethodology, conversation analysis, social constructionism, existential sociology, and varieties of postmodern theory. Certain forms of critical theory and feminist theory are also interpretive, although the emphasis in such approaches is on axiology rather than epistemology. Hence, there are also positivistic neo-Marxians and feminists.

One type of case study research is ethnographic research. These two terms are sometimes used interchangeably; however, neither "symbols" are used in entirely logical ways. Referring specifically to ethnography, Martin Hammersley and Paul Atkinson point out that the label is not used clearly, and hence there is confusion with other terms, such as *qualitative inquiry*, *field work*, *interpretive method*, and *case study*. They go on to distinguish

between *cases* and *settings*. The choice of the case under study has important implications.

The grounded theory approach stresses theoretical sampling in the selection of cases. It is based on comparing and contrasting cases. The sample of cases has to reflect theoretical concerns. It is also possible to sample within a case, with reference to the importance contexts of time or space. The case study setting is also related to time and space issues, of course. Cathy Charmaz has recently contributed greatly to an even more nuanced approach to grounded theory in sociology and in social science generally.

Not Reductionist Science

In all of the social sciences an emphasis on case studies tends to go hand in hand with a concern for interpretation of subtleties of human communication and action. Many scholars feel that such subtleties are lost when we move into reductionistic, hard science. In the natural and physical sciences the goal is the development of true, nomothetic laws. Such laws are not a part of the interpretive approach in philosophy or social science; that is, a key assumption of case study research from an interpretive perspective is that the construction of true nomothetic laws is not possible or even desirable. Hence, few case study researchers claim to be concerned about generalizations that are valid for all times and all places. There is some interest in generalizing beyond the immediate case at hand, but those generalizations are still relatively limited. For example, a case study of a cult in the United States might be used to generalize to other cults in North America but would not necessarily be viewed as a solid empirical basis for generalizing about all cults at all times and in all places.

Interpretivism is often differentiated from "science." When physical scientists "interpret" quantitative data, they are not utilizing interpretivism. The term science is often restricted to noninterpretive research, even when it involves case studies, as in naturalistic biological field work (e.g., ornithology, entomology). So-called "hard science" is associated with positivism as a methodology. *Positivism* itself is a label that reflects a wide variety of different kinds of perspectives. Much research in the physical, life, and behavioral sciences de-empha-

sizes the interpretation of meaning, even when the objective is empirical comprehension of human beings, either as individuals or as members of collectivities of various sizes (i.e., from small groups to world systems). Physical and biological anthropology, for example, do not emphasize the interpretation of human meaning. The natural sciences tend to study nonhuman aspects of phenomena, of course, and when interpretation of data is done in such hard sciences there is no specific concern with human meaning. Human meaning is not regarded as natural in the same way as molecules or atoms. Stars, chemicals, rocks, and genes are not amenable to interpretation in the same way as human social actions. The behavioral sciences tend to promote theory and research that are not interpretive. Many authors distinguish between human behavior and human action, where action is studied with reference to meaning but behavior is not. Human social action, by definition, requires interpretation. Behavior, on the other hand, is often studied without an emphasis on meaning. The divide between other animals and Homo sapiens is currently not considered to be as great as many theorists, such as G. H. Mead, once assumed. It is difficult to say precisely where instinctual behavior ends and meaningful symbolic action and interaction begin. That has been a particularly important problem in case study research concerning developmental psychology and language acquisition.

Structure and Process

When researchers examine a case it is not always clear whether they are examining a static, relatively unchanging structure (synchronic) or a dynamic process (diachronic, or historical). Some authors have tended to think that *structure* (e.g., de Saussure's *langue*) is much more important than process (e.g., parôle). Indeed, in the study of language as a human phenomenon it has often been the rational grammatical structure that has been given precedence. The distinction between static and processual aspects of phenomena is not always considered important. Many applied fields utilize a combination, wherein contemporary events are viewed on the basis of the understanding of earlier cases. For example, in the study of law in the United States there has been an emphasis on studying legal precedent ever since Christopher Langdell introduced the case method at Harvard in the 1880s. He had been influenced by pragmatist philosophy. That tradition in legal training spread to other applied fields, such as management, nursing, and social work. Evaluation of specific cases is also part of medicine and public health.

The scientific revolution involved emphasis on rapid-discovery science, and that form of science was often perceived as possible only through the application of mind in a strictly rational manner. However, a meta-analysis of the epistemological and ontological issues involved can lead to a different outlook, one that stresses mind and body. Without the full spectrum of mind, body, and soul one is likely to have less that a full understanding. A web approach requires that we make linkages among all three. If we merely think in a way that is disembodied and that is bureaucratically lacking in soul, then we are not likely to arrive at pragmatic answers to burning social issues.

But how, precisely, can one accomplish the utilization of mind, body, and soul all at once? William James, in his "Talks to Students," advocates that a certain "strenuous relaxation" is necessary. Interpretation of cases requires us to be open to the complex interrelatedness of various kinds of knowledge and learning. The importance of this topic was underlined long ago by Émile Durkheim.

Application

Sociological Imagination

Interpretation of a case often involves using what has come to be called the sociological imagination, even in research outside of the discipline of sociology. The phrase sociological imagination is associated with C. Wright Mills, but it does not have to be limited to that one historical individual. Sociological imagination is the term that C. Wright Mills uses to describe his version of the meaning of theory and method in sociology. If we limit our notions of what sociology is to either grand theory (GT) or abstracted empiricism (AE), then we will set up a false dichotomy. Interpretation allows for a third alternative. Mills labels that the sociological imagination. But it is now generally recognized that we should not rest with that formulation. Mills's own statement of his position is incomplete and misleading. Public intellectuals who wrote in a

time when Marxist ideas of any kind were dismissed often used the case study approach, but American university intellectuals were less and less prone to go public. A more comprehensive approach to case study research can involve an approach that can go beyond Mills's specific articulation of the sociological imagination. The sociological imagination can also involve that which is most valuable in empirical research and theoretical speculation. We can be wary of extreme forms of GT and AE without necessarily accepting all aspects of Mills's diatribes against straw man characterizations of the work of others.

GT does appear in those departments where there is a heavy emphasis on European—in particular, French and German—social theory. It is also a key aspect of "culture studies, which has taken over many sociological topics. To some extent, there has been a great deal of lip service paid to GT even by AE-ists; that is, an article which is essentially an exercise in AE frequently will cite Habermas or Derrida in the "theory" section, without, however, really linking the GT speculations of such thinkers to the specific topic at hand. Similarly, although regarded as a forerunner to critical theory there is nothing in Mills's work about the "grand theory" of such theorists as Adorno, Horkheimer, and Benjamin.

What seems to be missing from Mills's analysis of GT is any attempt to apply some of the same rhetorical techniques to some of the classical social and sociological theorists: Kant, Hegel, Nietzsche, Marx, Max Weber, Simmel, Pareto, Durkheim, Mead, DuBois, Addams, Nightingale, Martineau, Marianne Weber, Adorno, Horkheimer, Benjamin, and so forth. Mills cites Franz Neumann's Behemoth as an example of how to do it right, but Neumann's analysis has not been all that influential in sociological theory. It is an excellent historically based analysis of the financing of the National Socialist (Nazi) Party, but today it is mostly known by specialists. Few sociologists would list Neumann as a leading classical sociological theorist, even though his work is cited by authors such as Barrington Moore Jr. Similarly, there are forms of grand theorizing that are valuable. Mills stereotypes Talcott Parsons's writing style, but—as indicated—does not point out that many classical theorists have similarly difficult modes of presentation. Max Weber is deemed by many readers to

be less than easy to understand, particularly in translation. Few of those who have struggled with Karl Marx's first chapter in Capital would argue that he is the clearest of writers. Jürgen Habermas should not be relegated to a master of "mere" GT, although it is perhaps accurate to say that most of Habermas's contributions are indeed grandly theoretical. (His work in the sociology of law is often very deeply empirical.) Whatever one thinks of Foucault, it is obvious that his grand speculations have struck a responsive chord. Jacques Derrida is very difficult to understand at times, but in debate he could certainly give the essentialist and foundationalist C. Wright Mills a run for his money. There are many theorists who have made a significant contribution to that specialized task we call theory in ways that promote case study research and theorizing.

The additional "Other" for Mills is AE. He makes perfectly clear that anyone who does what he calls AE is likely to be too enamored with the techniques ("method" in the narrow sense). He is particularly strong in his opposition to those who are the second generation AE researchers. The originators, in particular, Paul Lazarsfeld, may have a wide education and a genuine understanding of what they are leaving out in their utilization of reductionistic scientific techniques, but the average graduate student utilizing cross-tabulation or regression of secondary data frequently does not have that wider grasp. The average AE researcher is more interested in solving little puzzles, Mills argues, than in really grappling with important topics. It is a routinized and bureaucratized way of doing sociology. It results in public opinion polls that are only one step removed from advertising, according to Mills. The procedures can be learned with ease, but the use of such techniques simply results in research that has no relevance whatsoever to the sociological imagination as Mills conceives of it. Like GT, AE is mainly useful for ideological purposes. It has no critical component. Mills is not happy with Samuel Stouffer's four volumes on the U.S. military during World War II, but today numerous textbooks mention Stouffer's study as a breakthrough work. Mills is particularly concerned with the way in which AE tends to be an approach to sociology that requires a large team of researchers and an administrative apparatus to keep things organized. He favors the single researcher who is both theorist and methodologist; that is, Mills favors the kind of work that, by and large, he himself did, and which made him famous. Presumably he might also have liked Erving Goffman's insightful work for the same reason, because Goffman did all his research more or less by himself, but Goffman is never cited by Mills. Goffman's use of the sociological imagination is quite different from classical theory and from Mills. Many of Goffman's books are reports on a series of case studies.

What is required is a genuine sense of craft. But what is "craft" completely devoid of all broader understanding of the links between whole and part and the complex web of interdependent linkages? A sociologist is not "just" a craftsperson (in the narrow sense). He or she should also have a philosophical grasp of the sociological perspective. Sociologists are not just "artisans" (in the limited sense). Utilizing an interpretive paradigm (and meta-paradigm) can help to reinforce the importance of attention to idiographic detail and wellgrounded generalizations. Although GT and AE in the negative sense should certainly be avoided, that should not be read to imply that all paradigmatic theorizing and abstraction from empirical, inductive research should be avoided altogether. The continued importance of grounded theory—a form of inductively arrived-at generalizations—is one clear reminder that case studies often do provide empirical information that remains very close to the immediate factual evidence.

We can consider a more generalized and less restricted kind of abstracted empiricism. It is simply not the case that every large-scale teamwork project in social science is a complete waste of time and resources. Mills's criticisms of Stouffer are largely beside the point. Stouffer's study of the "American Soldier" was undertaken in wartime and produced many valuable insights, in particular the realization that soldiers do not fight primarily for abstract reasons but on the basis of a sense of solidarity with their peers. That is a finding that had never been clearly elucidated before. It may have been hinted at, but it was certainly not at the forefront, and today it has been largely ignored outside of very specialized military circles. Sociologists interested in the military as well as war and peace studies may know about the Stouffer studies, but most graduate students will not have read any of the four volumes.

Sociology is a discipline well situated to provide detailed theoretical and empirically based analyses of the specifics of the overall problem of stratification and the general direction of history. However, for sociology as a discipline to be relevant—and perceived as relevant by the mass media and the general public—it will require more than highly abstract analyses or overly detailed studies of minutiae; hence Mills's warning about the evils of GT or AE. There is more than just a grain of truth in Mills's notion that if sociology is nothing but extreme versions of GT and/or AE then it will be largely irrelevant to practice and what Marxists call *praxis*.

Philosophical Assumptions

The philosophical ramifications are manifold. Many social scientists do not bother very much with professional philosophy. There is a significant divide between the scholarly publications in philosophy and refereed journals in the social sciences. Nevertheless, when we take a bird's eye view of the matter it becomes apparent that the interpretive paradigm touches on many philosophical issues; that is, when we move from paradigms to meta-paradigms we encounter cutting-edge philosophical problems. Sophisticated use of the case study interpretive approach requires some comprehension of the philosophical assumptions concerning epistemology that have intrigued many thinkers. What we mean by an interpretation is a deep philosophical problem, especially for historians and mathematicians. In ordinary language we often refer to interpretation without really differentiating interpretation from more general aspects of comprehension. In general, a social science interpretation that is based on a case study is an attempt to make sense of some empirical phenomenon. It goes beyond direct perception, denotation, or reference. Hence, an interpretation always adds something in order to try to make sense of what we see or hear. Case studies without interpretation do not make sense. But what does it mean to "make sense" in a social science or humanity?

For example, Gottlob Frege, the mathematician and philosopher, advanced a key insight into the nature of meaning and making "sense." Frege distinguishes between *perception* (denotation or reference, *Bedeutung*) and *sense* (meaning, *Sinn*). He argues

that there are at least three modes of conceiving of or representing entities. Two modes are denotative, and one refers to fundamental sense: (1) oblique reference or denotation of abstractions, such as the empty set, zero, and infinity (Bedeutung 1), (2) straightforward, fundamental, logical denotation related to names of objects and truth functions of sentences (Bedeutung 2); and (3) "fundamental sense" as in standard common sense. However, when we conceive of the world in terms of the five senses then we are dealing with conceptualization (apperception) rather than strict denotation (perception). We strive to actually make sense of the world (Sinn). His arguments are implicit in many of the puns found in Lewis Carroll's Alice in Wonderland, which is not so surprising since Carroll (whose real name was Charles L. Dodgson) was also a logician.

Later, Edmund Husserl approached somewhat the same notion of conceptualization through the metaphor of phenomenological understanding of the world as it is given to us through the phenomena we apprehend. Husserl was basing his work in part on Immanuel Kant's famous distinction between the phenomenal and the noumenal spheres, a distinction that Frege probably also had in mind. In the various social sciences we tend to be mostly concerned with interpretation in the phenomenal world of the senses. For Frege, the real sense (Sinn) of something is not necessarily contained in the thoughts that one's denotative language, verbal or mathematical, may contain. In other words, interpretation of deep meaning may not be limited to linguistic pragmatics and semantics. This is a topic that absorbed Charles Sanders Peirce, who stressed the importance of the pragmatic relevance of symbols and other signs. Bertrand Russell and Saul Kripke disputed Frege's distinction between denotation (Bedeutung) and deeper meaning (Sinn).

One way to conceive of the more philosophical aspects of the interpretive meta-paradigm is to emphasize the distinctions made by late 19th-century European philosophers. Wilhelm Dilthey emphasizes the importance of interpretation in terms of Friederich Schleiermacher's generalized hermeneutics and understanding (*verstehen*). Wilhelm Windelband differentiates between idiographic and nomothetic approaches. The nomothetic approach is intended to involve universal laws, valid for all relevant times and places, like

Newton's laws. (Since the early 20th century, scientific understanding of the universe has changed, and contemporary cosmology is quite different.) Nomothetic types, such as the elements in the periodic table, are epistemologically "real," but the idiographic approach, according to Windelband, is geared to the highly descriptive study of very specific cases in unique times and places. Heinrich Rickert builds on Windelband's distinctions and modifies the specifics, in particular with respect to psychology as nomothetic.

Max Weber then built his interpretive sociology (verstehende Soziologie) on all of those thinkers' ideas. Rather than see a polarized opposition between the idiographic and the nomothetic, however, Weber, influenced by Dilthey's conceptualization of verstehen, sees the distinctions made by Windelband and Rickert more in terms of a continuum. Weber then adds an intermediate, third category: ideal types. One way to discuss ideal types is to consider them as building blocks for models. Such ideal type models are true for sets of times and places/spaces; that is, they are historically contextual. If we consider what it was that Mills is positively recommending—as opposed to negatively criticizing—it is the kind of work in which an individual scholar (or a small group of like-minded individuals) might engage. It is possible to utilize his key terms as open ideal types that serve merely heuristic purposes. Max Weber's methodological ideas influenced Mills. Perhaps Hans H. Gerth, Mills's coauthor, had some kind of ideal types (or ideal type models) in mind.

Weber's notion of ideal type models is a different kind of case study approach than the idiographic thick description associated with Clifford Geertz. Geertz's technique emphasizes the more singular and unique aspects of the phenomenology of a very specific symbolic situation, like a cockfight in Bali, Indonesia. Many case study research projects are essentially idiographic, but there is no reason to limit case studies to thick description. For example, Theda Skocpol's work on revolutions involves the comparative-historical study of three cases. Neo-Weberian and neo-Marxian comparative-historical sociology can reasonably be considered as important for interpretive case study research as more descriptive, idiographic studies.

Critical Summary

Most social scientists are content to limit themselves to conventional linguistic meaning and do not worry too much about meanings behind the meanings. The "simple sign" is often enough. Hence, for those influenced by poststructuralism the study of "texts" as "signs" is a reasonable end point to an empirical investigation involving interpretation. However, extreme versions of postmodernism involve a deeper questioning of the viability of observational techniques and the case study method and methodology.

J. I. (Hans) Bakker

See also Agency; Communicative Action; Critical Theory; Epistemology; Ethnography; Grounded Theory; Phenomenology; Symbolic Interactionism; Thick Description; Verstehen

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Intertextuality

The concept of intertextuality plays a key role in textual theory: Its use and elaboration, in particular in literary studies, has had a significant impact on the way we interpret all written texts and understand the creation of meaning. For case studies, a clear awareness of the opacity and the density of the language that constitutes the discourses forming the case study (i.e., medical, business, journalistic, religious scientific, political, etc., discourses); the nature of their interaction; and the dominant, or hegemonic, forces at work within this framework is an essential tool for the researcher. It is a tool of critical analysis that aids the researcher in evaluating the meaning(s) of the texts being used. This entry briefly traces the development of the concept, its ramifications, and some of its practical consequences.

Conceptual Overview and Discussion

The concept of intertextuality arose out of textual theory in literary studies and semiotics after 1960,

notably in France, although its theoretical roots came from elsewhere. It has become a key concept in the area of text analysis and interpretation. It is essential to any sophisticated theoretical understanding of how meaning is created by texts; this applies to all case studies, because the textual material of the text must be analyzed for its meaning. Intertextuality at one and the same time theorizes the means by which textual meaning is understood (and thus stabilized), but it also problematizes the possibility of stable meaning at all. Because of this inherent dialectical opposition in the formulation of the concept, the term has often been used loosely to describe a wide variety of textual phenomena.

Derived from the Latin *texere* ("to weave"), the word's semantic origin speaks to the idea of the composite nature of any signifying entity. Whereas earlier theories of textuality emphasized the link to the biography of the author or the embodiment of some psychological state in the text, *intertextuality* grew out of a text theory that understood meaning as the result of the interplay of signs in a semiotic process. The notion found its initial origins in the work of the early 20th-century Russian theorist Mikhail Bakhtin and the Swiss linguist Ferdinand de Saussure. In Bakhtin's work the inherent heteroglossia (nonunitary, hybrid nature) of language was a fundamental principle, as was dialogism (the inherently dynamic and productive nature of language); in Saussure's work, the notion of the relational basis of meaning in a synchronic model of language was paramount. The term immediately gained an important position in discussions of cultural practice when it was developed in the 1970s because it was an important tool in theorizing the interconnectedness of meaning in cultures: It is hybrid, it is textual and semiotic in nature, it has formal constituents, and it is sociohistorical in

There is an inherent contradiction at the heart of the notion of intertextuality: Meaningful phenomena are boundless and without limits because of their inevitable interconnectedness, and they cannot recognize themselves for lack of boundaries, and yet some sort of empirical, definable measurement or boundary is necessary to make the signifying phenomenon perceptible. Whether a limited or a broader sense of the notion should be used, and which is the most powerful theoretically

and practically, has been the subject of much debate.

In the more limited or restricted sense, intertextuality theorizes the interrelationships between a specific text and previously existing texts. Two of the most significant critics to have exploited the notion of intertextuality are Michael Riffaterre and Gérard Genette, who both see it as a fundamental dimension of textual production. Riffaterre posits intertextuality within a theory of reading (the intertext constitutes all the texts that may be related to the present text; intertextuality is the perception by the reader of the sense of the connections). The productivity of reading moves from text to reader because the reader must perceive the agrammaticalities (deviations from normal usage) that are the empirical basis of perception. Genette, for his part, places intertextuality within the somewhat more limited framework of parody, allusion, quotation, and plagiarism and situates it in a broader textual theory in hierarchy of transtextual, paratextual, and architextual relationships. Genette is particularly interested in creating a taxonomy and consequently limits the force of this concept for textual theory.

In the broader sense, intertextuality has played a role in questioning the pre-1968 ideologies around the notions of self, identity, nationhood, influence, evolution, language/real-world relationships, and the closure of the text and its meaning. Iulia Kristeva coined the term on the basis of her studies of Bakhtin but infused the notion with the concept of productivity: Here, the fusion—and, more important, the transformation—of earlier forms, codes, and meanings created new meaning that contested the old. Roland Barthes expanded the Kristevan notion in his books S/Z and The Pleasure of the Text (Le Plaisir du texte): If in the earlier text the emphasis was on the codes that constructed the meaning in the text through the reader's understanding of the codes, then in the later text meaning was given free reign (productivity), and limits were removed from the act of meaning creation through the reading of texts. This understanding expands the notion of text to its broader semiotic sense of "signifying system" (be it textual, visual, aural, etc.). The text knows no bounds to unlimited semeiosis, that is, to the establishment of interconnections and the generation of new meaning. This much broader and more

open notion of textuality relates to Jacques Derrida's dictum "Il n'y a pas de hors-texte" ("There is no outside of the text") and serves as a key notion of deconstruction because all signifying elements are related to all other signifying elements. Such an open concept of intertextuality is at one and the same time highly stimulating as a notion but also highly problematic because it is almost impossible to work with in any practical sense.

Other schools of thought that have developed the notion of intertextuality include Yuri Lotman's Tartu School, which is more concerned with the notion of culture per se. Links back to Bakhtin are more pronounced here as intertextuality is linked to the possible conditions of readability of the signifying practices of any particular culture. From another perspective, Harold Bloom develops the notion of *misprision* within a diachronic (historical) notion of the evolution of literature as "misreadings" of predecessors. This is commonly known as the *anxiety of influence model*.

Application

More recently, the notion of intertextuality has been subsumed by that of interdiscursivity (the fundamental relatedness of all discourses), notably by Marc Angenot, in an attempt to explain the fundamental tendencies of social discourse within the framework of specific historical configurations. The text is the site of the interactions of juxtaposed elements of social discourse that take place within the context of a particular hegemony or dominant ideology. In this context, the Bakhtinian notion of ideologeme (the formal signifying element [image, text, sound to which semantic attributes are attached in different discourses; the formal element remains the same and can migrate across discourses; the meaning, however, changes) returns to play a specific formal and functional role: *Intertextuality* is understood here to constitute the transformation and movement of ideologemes in a society, and interdiscursivity describes the interrelationships between fundamental discourse rules in relation to the dominant mode of thinking (hegemony) of any historical situation. Theorized early on by Kristeva, but somewhat neglected by subsequent theorists who frequently removed the sociohistorical dimension of intertextuality because of the needs of a structuralist perspective, the

ideologeme in Angenot becomes the formal locus, the point of intersection between a particular linguistic, sociohistorical context and a whole discourse containing its own internal logic and implicit understanding: "the survival of the fittest," "the class struggle," "the death of God," for example. Although intertextuality took its roots from the attempt to describe "literariness," or the qualities that make literary discourse distinct from other forms of discourse, this reading extends the notion to the interaction of multiple discourses. It includes formally recognizable elements (e.g., the preceding expressions) within the implicit discursive structures that exist in the sociopolitical hegemony of a particular period (feudalism, liberalism, democracy, communism, tribalism, Catholicism, etc.).

Critical Summary

No language is pure: This was Bakhtin's starting point with *heteroglossia*; no text is innocent: This is where the study of ideologemes assists in determining implicit values in texts. The astute reader must possess the intellectual tools to deconstruct the text under examination. To assume that the text is transparent and results from a single, personal origin would be misleading. Such a textual awareness and the ability to spot ideologemes emanating from various discourses as they are reconstituted, transformed, and inflected in the text in question gives the reader a deeper understanding of the issues at play in each case study.

Donald Bruce

See also Discourse Analysis; Hybridity; Textual Analysis

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Interviews

Interviews, a widely used method of data collection for conducting systematic inquiry, have commonly been defined as "conversations with purpose and direction." Postmodernists describe interviews as dynamic meaning-making occasions that result in a collaborative production of knowledge. Viewed in this way, interviews are a process of seeking knowledge and understanding through conversation.

Conceptual Overview and Discussion

Interviews are conducted face to face, by telephone, online, or via e-mail, and are often audio- or video-taped. These recordings are then transcribed, and the transcriptions become the documents used in the analysis process. Field notes documenting the interview process also become a data source.

Types of Interviews

Because interviews vary in relation to the framework and latitude provided for participant response, they are often categorized as *structured*, *semistructured*, *unstructured*, and *informal*. Group interviews are referred to as *focus groups*.

Structured Interviews

Structured interviews, also referred to as formal or standardized interviews, are used when the researcher has some knowledge of the area under study. All participants are offered the same set of questions so that responses can be compared. Advantages of the structured interview data collection method are that it facilitates analysis, validity checks, and triangulation, and it can be administered with ease. One limitation of structured interviews is the assumption that the meaning of a particular question is the same for all participants, although such questions are often open to multiple interpretations based on cultural differences. Additionally, responses elicited by structured interviews will likely be more rational and reflect limited emotional content.

Semistructured Interviews

Semistructured, or *semistandardized* interviews, located on the continuum between structured and

unstructured interviews, seek to address a number of predetermined questions or topic areas. All questions used in these interviews are not necessarily prepared in advance; instead, they evolve as the interviews progress. Semistructured interviews are used when the researcher's goal is to compare the participants' responses while simultaneously seeking to fully understand their unique experiences. Such interviews are effective with larger samples and are used when researchers have some knowledge of the subject area but would like to expand their understanding of it.

Unstructured Interviews

Unstructured interviews, designed to elicit in-depth responses, are particularly well suited to sensitive research topics. A flexible topic guide may be used, or the topic guide may be dispensed with entirely. Participants are invited to use their own language to describe their experiences and, in the latter case, to talk about what they believe is relevant to the issue. Researchers using the unstructured interview process often conduct their own interviews rather than delegate this task to assistants. Unstructured interviews are highly dependent on the cooperation of a small group of key individuals and the ability of researchers to be resourceful and honest. The researcher/interviewer role is to engage participants in conversation using nondirective methods, such as open-ended questions, probes, and verbal and nonverbal encouragers. Researchers using unstructured interviews understand that such interviews are a complex social process that cannot be replicated.

Informal Interviews

Informal interviews are serendipitous and refer to the casual conversations that occur prior to the formal interviews. Details of these conversations, which are often not audiotaped, are usually recorded as field notes.

Focus Groups

Focus groups are carefully moderated group discussions designed to gain perspectives on a defined subject. Conducted in a nonthreatening environment, they are used when researchers determine that a conversation among participants will yield the best information, when time to collect information is limited, or when participants are hesitant to provide information in a one-to-one situation. These meetings are video- and/or audiotaped, and field notes are generally compiled.

Selection of Interview Type

The type of research interview a researcher selects is based on the research question, which in turn influences the kinds of questions asked and the desired nature of the answers. For example, if a researcher studying smoking cessation is interested in knowing the frequency and location of cigarette smoking, a structured questionnaire would elicit the required data. However, if the researcher wants to know *how* a participant stopped smoking, a semistructured interview would be more appropriate. On the other hand, if the goal is to understand the experience of smoking cessation, an unstructured interview would provide rich data on thoughts, feelings, and behavior associated with smoking cessation.

Other factors to consider when selecting the type of interview are the quality and quantity of the data desired and the number of study participants. For example, to enhance comparison of data, some degree of standardization may be necessary in multiple case studies or when the number of participants is high. In such instances structured interviews may be more beneficial, and researchers can then decide whether the interviews will be individual or group centered.

Critique of Interviews as a Data Collection Method

The advantages of using interviews are that a large quantity and variety of data can be acquired over a relatively short period of time. When combined with field notes and observational data, interviews promise both depth and breadth. However, a number of cautions and criticisms have been leveled about interviews as a method of data collection. These critiques are related to various issues, such as attitude toward participants, power, culture, and confusion between research interviewing and therapy.

Attitude Toward Participants

Postmodern, constructivist researchers challenge several basic assumptions underlying the

traditional structured interview, such as the belief that the social world exists independent of the language used to describe this world and that minimizing bias and maximizing validity will lead to the discovery of truth. Because traditionalists engaging in structured interviews view participants as passively disengaged vessels of answers, their interview questions are asked specifically to create a milieu in which participants could convey desired information. Postmodern, constructivist scholars believe that attempts to disembody interviews from their interactional components are futile, because interview participants construct knowledge in collaboration with the interviewer. This constructivist perspective holds that meaning is socially constituted and that interviewing is a social encounter that actively produces knowledge. Interview data are considered to be representative of one of many possible social worlds; therefore, discovering how closely an account represents the truth is impossible.

The traditional structured interview has also been criticized on other accounts. Some researchers note that what people said in questionnaires or standardized interviews was often not what they did in practice. If trust had not been established between participants and interviewer, or if participants were permitted to talk only about topics on the questionnaire, their feelings of alienation from the encounter could result in misleading responses.

Power

Feminist researchers view the standardized interview as exploitative because, with the interviewer defining the boundaries of relevant and irrelevant conversational topics, the relationship of power was unbalanced. Feminists also challenge the assumptions that all interviewers are capable and that they must maintain an objective, neutral stance. They further assert that research interviewers must clarify the agenda, inform participants of the purpose and uses of the research, answer participant questions, and tell participants some information about their own lives. The researcher's values, beliefs, identity, and emotions must also be reported in the research context to minimize the hierarchical relationship between researcher and participant.

On the other hand, the assumptions that a feminist stance can reduce barriers related to social

class and cultural differences, and that authentic accounts will be given at times of emotional intimacy, have also been challenged.

Cultural Differences

Cross-cultural interviews involve research interviewers and participants who have different cultural memberships, as, for example, in relation to factors such as gender, age, ethnicity, race, and ability. Such differences pose a number of challenges. For example, interviews may be affected by how a culture regards age, gender, religion, sexual orientation, and socioeconomic status. Also, interviewers may feel uncomfortable interviewing across race, class, or gender. Researcher interviewers may also face difficulties of physical and psychological access. Strategies for overcoming cultural barriers include training interviewers to be culturally aware, matching the interviewer and participants culturally, using cross-cultural teams, and involving a trusted member of the cultural community in order to gain access to participants.

Research Interviewing Versus Therapy

The in-depth *research interview* and the *therapeutic interview* are similar, particularly if the research interviewer engages in sequential interviews with one participant, such as in a phenomenological study. Both procedures are intentional interviews and rely on a trusting relationship that enables the participant to express deep, privately held thoughts and feelings.

However, the research interview and the therapeutic interview differ in several significant ways. First, the goal of the research interview is to elicit responses that focus on the purpose of the research, whereas that of therapy is to enhance client functioning. Offering advice, interpretation, and alternatives is not the role of a research interviewer. Second, the therapeutic interviewer engages intensely with clients for as long as is necessary to support and sustain change, whereas the research interviewer's engagement with participants is short term, usually comprising one or two meetings. As well, the research interviewer and participant are considered partners in knowledge building, whereas the therapeutic interviewer's role is ultimately to work collaboratively with clients to enhance the psychosocial functioning.

Application

Structured Interviews

In structured interviews, the research interviewer asks all participants the same questions and records the responses on a previously established coding scheme. The interviewer, who is often hired by the researcher, offers a short explanation of the study, engages a scripted introduction, and poses the same sequence of questions to every participant. Interviewers neither share their personal views nor interpret the meanings of the questions to participants.

Unstructured Interviews

Unstructured interviews are intentional conversations in which the researcher interviewer listens intensely to the participant's responses in an effort to discern key words or ideas. Although the interviewer may have a structure or sequence of questions in mind, the flow of the interaction is fluid and based on the subtle interactions between the dyad. Observing and responding to nonverbal behavior are fundamental parts of all interviews, because such behavior is not only an indicator of affect but also an important source of data for field notes.

The following guidelines for effective unstructured interviews offer a summary of their key elements.

- Arrange to meet the participant in a confidential
- Always begin with an informal conversation to create a climate of ease and comfort.
- Describe the purpose of the research and review all aspects of the informed consent document. Invite questions and respond to all requests for clarification.
- Obtain background and demographic information at the beginning of the interview.
 This can serve to ease tension, although it may also create a pattern of eliciting short, closed responses from the participant.
- Remember that the interview is an intentional conversation, facilitated by the use of basic listening skills, including eye contact and attention to vocal qualities; that is, the interviewer should use a voice tone that communicates interest and

- should speak at an appropriate rate. Attentive body language and facilitative, encouraging gestures also communicate genuine interest and are crucial to trust building.
- Use nonjudgmental facial expressions, as well as minimal encouragers, such as head nods and verbal utterances such as "Yes" and "Uh-huh." This encourages participants to expand their narratives.
- Use open questions or probes to elicit effective, open communication. Examples of open questions are "What else happened?" and "What is it like to work here?" Examples of probes are "Tell me more about your family" and "Tell me how you stopped smoking." Closed questions invite shorter, usually one- or two-word, responses. An example of a closed question is "Do you like living in this community?"
- Use paraphrasing and summarizing techniques to clarify and distill what has been said. Such statements are used to maintain the focus of the interview, move to a new topic, or clarify complex issues.

Focus Groups

When focus group interviews are chosen as a method of data collection, the researcher must consider factors such as session length, number of participants, and number of groups. In terms of session length, 90-minute meetings are generally sufficient; however, to ensure the procurement of 90 minutes of data, participants are usually asked to attend 2-hour sessions. Limiting group size to between 6 and 10 participants maximizes the possibility that all group members are heard, the discussions are spontaneous, and the data have depth and breadth. Engaging three to five groups of participants assists the researcher in verifying the data and better determining whether the data are influenced by particular group dynamics. To prepare for the possible scenario of underattendance and therefore limited sustainability of conversation, overrecruitment by 20% is recommended. The group is either facilitated by the researcher or a moderator, with the latter circumstance being ideal because it offers the researcher opportunities for observation and note taking.

The group moderator generally follows either a structured or semistructured interview guide

composed of four to five questions or topics. The opening question, often a fact-based question to be answered by everyone, aims to identify group commonalities. The second question, designed to foster conversation, invites participants to consider their connection to the research topic. Key questions or topic areas directly related to the study follow. Responses to these queries become the primary focus of analysis. Ending questions, which are critical to focus group interviews, invite participants to reflect back on their comments and those of others. The "all things considered" question asks participants to state their final positions on the subject. After encapsulating the major points of the discussion, the moderator asks the summary question "Have I missed anything?"

Critical Summary

An important source of case study data is the interview, which may be structured, semistructured, unstructured, or a focus group. Choosing the type of interview is based on the nature of the data desired, the goals of the research, and the number of participants. The type of interview selected will dictate the nature of the interview procedure, with the unstructured interview requiring advanced interpersonal communication skills.

Constance A. Barlow

See also Constructivism; Field Notes; Field Work; Objectivism; Postmodernism; Reflexivity; Subjectivism

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Intrinsic Case Study

An intrinsic case study is the study of a case (e.g., person, specific group, occupation, department, organization) where the case itself is of primary interest in the exploration. The exploration is driven by a desire to know more about the uniqueness of the case rather than to build theory or how the case represents other cases.

Conceptualization and Discussion

Robert Stake classifies cases into three categories: (1) intrinsic, (2) instrumental, and (3) collective. The *intrinsic case* is often exploratory in nature, and the researcher is guided by his or her interest in the case itself rather than in extending theory or generalizing across cases. In an instrumental case study the case is secondary to the exploration of a specific issue, building theory or redrawing generalizations. In an instrumental case study the case becomes a tool to better understand something else. A collective case study involves the exploration of multiple instrumental case studies. Stake does note that a case study can be both intrinsic and instrumental in nature and that it is sometimes difficult to categorize a case into one or the other type. The key in both the intrinsic and instrumental case study is the opportunity to learn. Stake notes that researchers often have multiple research interests and thus engage in both intrinsic and instrumental case research. Moreover, expectations in academia to produce generalizable findings make it challenging for researchers to represent their cases as purely intrinsic.

The intrinsic case study offers an opportunity to understand particularities. The researcher is interested in context and is seeking both depth and breadth in his or her exploration. Qualitative research methods are best aligned with the philosophical underpinnings of the intrinsic case, where researcher, participants, and readers play a role in reconstructing experience. Jane Appleton contends that, although he does not state it explicitly, Stake's approach to case study research is underpinned by constructivism. The intrinsic case is exploratory in nature; however, preparation around whom to talk with, where to gather data, and which events to observe are still important. Data analysis will focus more on interpreting meaning rather than aggregate categorizing of data, as is in common the instrumental case. The intrinsic case strives to capture the richness and complexity of the case. The structure of the case report is likely to be emergent in nature, largely determined by the stories and experiences that surface from the data collected.

Application

Stephen Connolly and Sorrel Penn-Edwards present an intrinsic case study on the Department of Education, Science and Training's (DEST) Values Education Programme (VEP) in Australia. Connolly and Penn-Edwards's primary interest is in the case itself, and they are driven by a concern with the rollout of the DEST's VEP over the next 4 years. Their research is exploratory in nature and focuses on uncovering the particularities of teachers' understandings and acceptance of the VEP. Connolly and Penn-Edwards also note that their research will provide insight into future research on VEP acceptance, identification with, and implementation by other teachers and schools. Moreover, their research also aims to contribute to the larger body of research that is concerned with the debate over values-based education. It is this secondary interest that demonstrates the instrumental aspect of the case. The significant financial and time investment devoted to VEP by the DEST make the findings of this intrinsic case study relevant, timely, and transferable to other VEP sites. Overall, the case research is driven by an interest in the particularities of the DEST's VEP program, not theorizing or generalizations, and thus it is an exemplar of an intrinsic case study.

David Wicks and Gina Grandy's work on cultural membership and participation by self-taught and apprenticed tattooists in Canada is another example of intrinsic case research. In many ways,

Wicks and Grandy represent their work as more instrumental than intrinsic in nature. They draw specific attention to the theoretical contribution of their work, and they argue for the adoption of a fragmentationist perspective to surface the ambiguity of organizational culture rather than focusing on the consistency and clarity often present in studies of organizational culture. The case itself is initially presented as offering an empirical contribution to the study of organizational culture. Wicks and Grandy do emphasize that we know little about the tattooing industry despite its rapid growth as a part of mainstream culture. They argue that through an exploration into a relatively unexplored site we may be able to see "old" issues (e.g., organizational culture as consistency and clarity) in new ways. It is in their reflections on the research study, however, where it becomes evident that this is an intrinsic case study first and instrumental case study second. They discuss in detail how it was their own experiences and interests that led them to this case, not a desire to know more about organizational culture. Grandy started on the journey to better understand the case in order to explore how tattoos might be a means through which she could express who she is or wanted to be. Wicks also had an interest in the particularities of the case, having already acquired two tattoos and considering a third. Both were drawn to the case because of their interest in the tattooing industry and a desire to better understand the historical, social, and business side of tattooing in Canada. The theoretical and empirical contribution (i.e., instrumental aspect) of the research is really an outcome of their intrinsic case study.

Critical Summary

Stake contends that pressure in academia to produce generalizable findings devalues the importance of the intrinsic case. Researchers adopting an intrinsic case approach do not avoid generalization. The focus, however, is in offering the reader thick description of the case so that the reader can draw his or her own interpretations about the particularities of the case and the transferability of the findings to other cases. The intrinsic case attempts to generalize from within, rather than from case to case. Undoubtedly, the researcher will struggle with making decisions about how much detail and

complexity to include in reconstructing the case for the reader. Trade-offs that favor generalizability or theorizing over depth jeopardize the reliving of the case, or the *experience* of the case for the reader.

Gina Grandy

See also Constructivism; Instrumental Case Study; Thick Description

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Isomorphism

Isomorphism describes a process whereby two or more entities come to develop similar structures and forms. In organizational studies, *institutional isomorphism* refers to transformation(s) of organizations within the same field (e.g., education) due to coercive, mimetic, and/or normative influences on organizational processes and structures.

Discussion and Application to Case Study Research

Types of Isomorphism

Paul J. DiMaggio and Walter W. Powell introduced the concept of institutional isomorphism

within the broader realm of new institution theory. Institutional isomorphism is said to occur through three isomorphic processes: (1) coercive, (2) mimetic, and (3) normative. Coercive isomorphism is a reaction to a dependent relationship with another organization. This dependency can be either an overt relationship or can result from more subtle pressures. An example of an overt relationship would be one between organizations and government regulatory bodies in which the organization has to conform to government regulations (e.g., no-smoking regulations). A more subtle form of coercion may occur when an organization feels compelled to adopt industry practices that, although not required, are important for competitiveness (e.g., the adoption of IS09000 standards) and/or legitimacy (e.g., a business school's adoption of external accreditation).

A case study approach for examining coercive isomorphism would highlight the relationship between a dominant and a dependent organization, perhaps exploring the subtleties within the relationship that cause coercive isomorphism.

Mimetic isomorphism tends to appear when there is a high level of uncertainty within the environment. Organizations will then model themselves after an organization within their field that they deem successful in order to reduce the uncertainty. For example, de Holan and Phillips's study of a Cuban manufacturing firm, MagoTaplan, which was undergoing change after the fall of the Soviet Union in 1989, highlights how the uncertainty within the economic system in Cuba necessitated a change in the structure and processes of MagoTaplan. The director of the organization was able to utilize new departmental structures and pay arrangements that were modeled after structures and systems that could be found in a capitalist system even though constrained within the centralized economy of Cuba. This case study approach focused on the unique experience of one organization's change process to demonstrate the potential use of isomorphism for dealing with uncertainty. A comparative case study approach would be effective in demonstrating the qualities of both the successful organization and the one that is facing uncertainty, as well as the mimetic change process involved. An individual case study could also be used to follow the decision-making process of the organization undergoing change with a view to unearthing the process of deciding which organization to model.

The final isomorphic process, normative isomorphism, is a result of similar training methods and socialization habits through processes of professionalism and professionalization. This form of isomorphism is fostered by both the formal education system, which produces professionals of similar backgrounds, and professional networks such as professional and trade associations that maintain and perpetuate their normative rules. The effect of normative isomorphism, as described by DiMaggio and Powell, is seen in the homogeneity of Fortune 500 board members. A case study by M. Tina Dacin also demonstrated normative isomorphism in an examination of the choice of language in newspapers in Finland during a phase of nationalism and increasing independence. In this instance, the market force of nationalism combined with the normative pressures of the newspaper companies to increase the number of Finnish language newspapers, even in areas of Finland where Swedish was the dominant spoken language. Research in this area could effectively use the case study method by examining an organizational field as a unit of study, because isomorphic pressures tend to occur at the field level.

Organizational Field

Homogenization will tend to occur within organizational fields (sometimes also referred to as institutional fields, or simply as fields). The relevant organizational field for an institution undergoing isomorphic change contains the organizations that are most closely related, such as competitors; suppliers and customers; and, in some instances, those entities that are geographically proximal. Once an organizational field is established, its presence will limit the alternatives for organizations within the field for structures and process and will have a dampening effect on radical change initiatives. The development of institutional fields was investigated in a case study by Thomas B. Lawrence and Nelson Phillips on the whale-watching industry. Innovation and isomorphism combined to create unique networks of relationships between organizations that led to the emergence of a new organizational field. The early adopters of innovation within a field do so in order to capitalize on the benefits of innovation for performance; however, the later adopters do so to secure legitimacy within the field.

Legitimacy

John W. Meyer and Brian Rowan connected isomorphic tendencies of organizations with a pursuit of legitimacy through the incorporation of standards and rules at the field level. *Legitimacy* reflects the correlation between a society's expectations for an organization and the values and actions that the organization portrays. As the number of organizations adopting a set of standards, rules, or norms increases, the stronger the association of this specific set of attributes with the expectations of society. To gain legitimacy, organizations within such a field will need to adopt similar structures and behaviors. The drive for legitimacy will also increase with a higher level of regulation within an industry.

Operationalizing Isomorphism in Case Study Research

DiMaggio and Powell operationalized isomorphism as the characteristics of structure, culture, and output. However, different studies have measured isomorphism in a variety of ways, for example, the degree of strategic conformity in a study of commercial banks, the complex measurement of performance outputs and resource inputs in a study of governmental agencies, and the language used by newly founded newspapers. Not all instances of isomorphism may be measured exclusively by quantitative measures, and therefore the potential for a qualitative design makes a case study approach a good fit with this area of research. For example, an investigation into the similarities and differences between cultures that have developed within organizations may find a qualitative approach appropriate.

Similarity and Uniqueness

Although DiMaggio and Powell originally posited that isomorphism would occur in organizations with respect to structure, output, and culture, some studies have found that some organizations have been able to combine both homogeneity at

the level of the institutional field and diversity at an organizational or subgroup level through variations in organizational culture. At the same time that there are pressures for organizations to become homogeneous there are also strategic pressures to demonstrate uniqueness. A comparative case study approach may be used effectively to contrast the specific elements of organizational culture between two organizations within the same field that have undergone isomorphic processes leading toward similarity while maintaining differentiation through the uniqueness of their individual organizational cultures. The case study method would be effective in this area of research particularly because of the complexity involved in examining both the similarities of connected organizations and the differentiation of individual organizations internally.

Critical Summary

There is considerable potential for case study research in this area to focus on the transformative change that an individual organization undertakes in its pursuit of legitimization with an institutional field and for analysis on the impact on an organizational field of the actions of leading organizations in the field. Individual cases can be used to expand on the concept of isomorphism through highlighting specific experiences of an organization as it contends with pressures to adhere to a common set of standards, norms, and values within an organizational field. Case study research would also be relevant for investigating organizations that contradict the theory of isomorphic change within fields by examining the elements of an organization that allow it to resist the isomorphic pressures of a field. At a field level of examination, case study research could be used to examine the development and emergence of new organizational fields as relationships between organizations change and alter the composition of fields. The rich empirical data and depth of investigation in one situation resulting from a case study approach make this method of study an effective research tool for studying isomorphism within organizations and fields.

However, this very strength also poses a drawback for the case study approach. The results of a case study are not necessarily generalizable across different organizational fields. Generalizable results would require the comparison of several individual studies in several fields; moreover, the case study is not applicable in a situation in which the researcher wishes to examine a large number of organizations that have undergone isomorphic change. In this instance, a survey approach may be more effective.

Rhonda Pyper

See also Comparative Case Study

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ITERATIVE

Iterative refers to a systematic, repetitive, and recursive process in qualitative data analysis. An iterative approach involves a sequence of tasks carried out in exactly the same manner each time and executed multiple times. Meaning is provided to this repeatable formulation in qualitative research by calling upon a prior, recognized authorized usage. The interplay between elements of the research, such as that between design and discovery, or among data collection, preliminary analysis, and further data collection, are examples of an iterative approach in qualitative research.

Conceptual Overview and Discussion

The philosophy behind an iterative approach to research is that of flexibility and ongoing change that meets the needs of the research design, data requirements, and analysis methods in response to new information as it is collected. Loops of iterative cycles occur that may begin as small loops and then move into larger cycles. Iterative sampling is an example of an iterative process. Working back and forth between the research design and the initial data collection, adjustment can be made to the purposive sampling frame, followed by further data collection with another cycle of evaluation against the sampling frame, and further sampling adjustment and data collection as needed. Iterative sampling ensures that information-rich participants are included in the study. This process recognizes that rich information, purposefully focused on the collection of specific, rather than general, data related to the research topic, is necessary for reliable and valid qualitative research. Mistakenly criticized as repeatedly changing the objectives of the study, and as lacking rigor, an iterative approach is valuable for its sensitivity to the richness and variability of data and for ensuring data address the study's objectives.

In the coding of data, an iterative sequence of actions occur, in which a segment of data is selected, conceptualized, and tagged or labeled with a meaningful code. This sequence is executed multiple times in exactly the same way. A further iterative cycle occurs alongside the coding sequence as the researcher moves between the inductive discoveries of patterns to their deductive verification, yielding further inductive insight, beginning the cycle again.

Themes may emerge from iteratively induced patterns. In the visual display of themes in models and network diagrams connections between themes, as well as new themes, emerge. Working back and forth between raw data, codes, themes, and visual data display, another iterative cycle is begun.

Drawing together and lengthening out the inductive–deductive and thematic data display iterations are yet other cycles, those of reflection and writing. As the findings are written up, analysis continues with reflection on the results, returning to the analysis, writing up some of the findings,

reflecting back to the results, and so on. By executing these sequences multiple times the analysis deepens and gains momentum, while at the same time a standard of reliability is applied to the subjective process of coding, interpretation, and analysis in qualitative research.

Application

Julia A. Walters, Emily C. Hansen, E. Haydn Walters, and Richard Wood-Baker describe an iterative approach in which each transcript was read after each interview with attention to repeated stories and links between events. Initial codes and memos were applied to the data. This cycle of reading, linking, coding, and memoing was repeated with each interview. Another iteration, in which interview transcripts were compared with each other, began following collection of the second interview. Codes were collated into categories, and categories were grouped into themes in further iterative cycles involving comparison among codes, categories, and themes.

In a multi-case study, Ned Kock used iterative cycles in action research with eight organizations in two countries (four in each country). Proceeding iteratively through processes of diagnosing, planning, taking action, evaluating, and then specifying learning objectives for each organization, an evaluative model was developed. The processes were completed for each organization before beginning the same process with the next organization. The evaluative model was refined with the results from each organization's iterations.

Mindful of the often-overlooked insights from group conversations about research, Trena Paulus, Marianne Woodside and Mary Zeigler describe an iterative process of collaborative dialogue in their study. Each team member brought individually constructed understandings of the research to team meetings. Collaborative understandings from individually constructed meanings were created through talk, shifting individual team member's understandings. Collaborative dialogue led to the revision and refinement of analyses and manuscripts as the iterative cycles of individual and group understanding led to further iterations between analyses and manuscripts and looped back to further collaborative dialogue. The active development of understanding through iterative cycles of dialogue, analysis, writing, and more dialogue challenges concepts such as saturation and interrater reliability. *Saturation* refers to the process whereby data are collected and analyzed until no new themes are identified; *interrater reliability* refers to measured agreement between raters or coders. Iterative cycles in which collaborative discussion of codes and coding, checking interpretations against data and prior interpretations, frequently resulted in new themes and in multiple, in-depth meanings replacing the more superficial rater agreements as the basis of understanding.

Critical Summary

An iterative approach in qualitative research provides the flexibility necessary to adapt data collection and analysis in response to the needs of the study. An iterative process, which involves the systematic repetition of a sequence of tasks executed in exactly the same manner multiple times, provides a deepening understanding of research data and brings a standard of reliability to the research.

B. Raewyn Bassett

See also Depth of Data; Performativity; Reliability

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Iterative Nodes

The iterative nodes concept is a qualitative research methodological tool used to evaluate identifiable sets of leadership activities to determine the effectiveness of a leader. The activities are categorized and analyzed in the context of the leader's ability to effectively manage data or information to arrive at unbiased and viable conclusions or decisions, especially in the scarcity of resources.

Conceptual Overview and Discussion

Hezekiah Orji introduced the idea of the iterative nodes in his initial study of the role and impact of U.S. presidential leadership on global security. In this quest, Orji used NVivo software to organize and categorize archival data obtained from books, electronic databases, and contemporary narratives on policy decisions pertaining to U.S. presidents Jimmy Carter and George W. Bush for content analysis. Numerous themes emerged in the process that were categorized into five major themes for reasonableness of manageability and study significance. Analysis of these major themes yielded results that were identified with the presidents' emerging leadership approaches (transactional and transformational), which were then evaluated to identify the presidents' levels of effectiveness.

Application

Because many leadership decisions have resulted in discords that have often deteriorated to levels of unwanted or unnecessary wars and/or conflicts, a qualitative research tool that would facilitate intense scholarship on case studies toward ideas on limiting the probabilities of errors in decisions becomes increasingly crucial. The triangulation approach used in Orji's study developed into a qualitative research methodology—the Zekoist iterative triangulation concept (ZIT-c), in which iterative nodes (see Figure 1) are conceptualized as major components. The iterative nodes are defined in the study as integrated sets of elemental components that, if properly applied, would limit the chances for errors in judgment. The ZIT-c illustrates the interactivities that occur between identified systems elements and the iterations within the systems that are studied. The study evaluates a leader's ability on the basis of data, as is done in similar qualitative studies.

The ZIT-c was motivated through generalizations obtained from triangulating theories and prior concepts of systems theory, hierarchy of

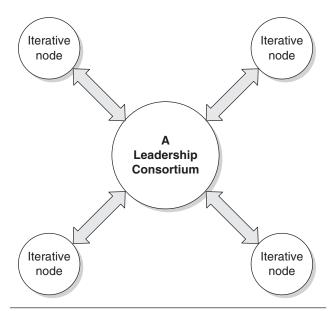


Figure 1 The iterative nodes concept illustrated in a leadership consortium using four iterative nodes

Source: Adapted from the Zekoist Iterative Triangulation concept. Orji, H. U. (2007). Effects of United States presidents' leadership roles on global security: A case of Carter and Bush. D.M. dissertation, University of Phoenix, United States—Arizona.

needs, and organizations' team learning. Orji's study explored presidential leadership consortia, focusing on the iterations that occurred between the leadership systems elements, for impact on global security. For instance, Orji used the iterative nodes as a tool to identify some of the challenges in the George W. Bush administration as follows:

- Flawed intelligence use as the basis for a major conflict—the Iraq war
- Distractions from focused campaign on Afghanistan to capture Al-Qaeda's chief, Osama bin Laden
- Limiting the power of diplomacy by restricting talks with "rogue states"—nations of threat to world peace, such as the administration's Iraq— Iran—North Korea "axis of evil" in the context of the "Bush Doctrine" and its principle of preemptive strikes
- Unlawful associations with corrupt political lobbyists, such as Jack Abramoff;
- Political wars against ideological rivals, such as Ambassador Joseph Wilson, whose wife Valerie Plame's CIA operative status was uncovered in the wake of Mr. Wilson's dissent with the administration's allegation of an Iraq-Niger connection for uranium acquisition; and,

 Appointing and supporting incompetent and unqualified persons to manage important positions, such as former Federal Emergency Management Administration chief Michael Brown, who subsequently resigned after allegations of incompetent handling of issues in the aftermath of Hurricane Katrina.

Orji's study used the ZIT-c methodology to elucidate, among many other things, the importance of communication skills in leadership. The study also observed that respect of sovereignties and due consideration to opposing views are among the few attributes of a successful leader. A recent example of application of the iterative nodes concept in governance can be found in Washington State Governor's Executive Order 08-01, through which Governor Christine Gregoire constituted an apolitical council (the Washington's New American's Policy Council) in early January 2008 to augment support for her leadership in policies of resettling "new immigrants" in the State of Washington. As in the case of Washington state, the iterative nodes concept could also be applied to a range of other dealings where communication and decision making are involved. The focus of the study is on analyzing systems interactivities while evaluating for synergism in the decisions that leaders make. In triangulating for the systems concept, Orji considered seriously the approaches the presidents he studied had used in policy decisions when placing hierarchies on the security needs of the United States.

Critical Summary

The iterative nodes concept is a new and emerging approach to qualitative analysis of a leader's ability to limit the probabilities of error in decision making. The leader must be willing, for the most part, to consider the views of others, often from unassuming entities such as apolitical councils. Such empirical tools as the iterative nodes concept can be difficult to compare against traditional approaches like the think tanks and special interest groups. However, as more researchers employ this tool and provide feedback, the various challenges that have been associated with such administrations as George W. Bush's can be mitigated. Improving on the communication gaps that are revealed in the contextual complexities that cause

problems for leaders is a feasible objective by the use of the iterative nodes concept.

Hezekiah Uba Orji

See also Qualitative Analysis in Case Study

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JUNCTURE

The concept of the juncture is a methodological device for studying organizational change over time. It refers to a concurrence of events in time in which a series of images, impressions, and experiences come together, giving the appearance of a coherent whole that influences how an organization is understood.

Conceptual Overview and Discussion

Albert J. Mills introduced the idea of the juncture in his initial study of how the cultures of organizations become gendered (i.e., develop and privilege practices that are perceived as either male or female associated) and how gendered practices change over time. To answer these questions, Mills began with a major case study of a single organization that had been in operation for at least 50 years, was still in business, and whose history could be tracked through archival materials, written histories, and interviews with past and present employees. To that end, he began his research with a study of British Airways and its predecessors. The immediate problem was twofold: One, what to focus on as exemplars of gendered practices and, two, how to conceptualize organizational change, as selected gendered practices (i.e., allmale flight crews) gave way to new practices over time (i.e., the advent of the stewardess).

The answer for Mills was to focus on (a) the hiring and imaging of women, and (b) periods

where there was a marked difference between British Airways' hiring/imaging practices. This generated eight distinct periods, or junctures:

- 1. The development of an all-male organization (1919–1924)
- 2. The introduction and growth of female employment (1924–1939)
- 3. The war years and the rapid expansion of female employment (1940–1954)
- 4. The consolidation and normalization of female employment (1946–1960)
- 5. The eroticization of female labor (1960–1974)
- 6. Equity struggles (1974–1981)
- 7. The development and consolidation of professionalized female labor (1982–1991)
- 8. The emergence of a new juncture focused on female management and leadership (1991–)

In the search for different periods of time, Mills became convinced that each period was not a periodization of one continuous flow of time but rather evidence of alternative explanations centered on the distinct ways of making sense, or the ongoing sensemaking, of those involved and of the researcher. For example, the period from 1919 to 1939 not only witnessed a change in hiring practices at British Airways, but also a different way of thinking about "women's work"; the distinct periods also provided the researcher with a heuristic for studying gender over time. Thus, instead of *period*, Mills developed the term *juncture* to capture the

idea that organizational change may not simply be a substantive change to but also of those involved. This became clear as Mills found that airline officials didn't simply suddenly decide to open up employment to women in 1924 but that the decision represented a fundamental shift in thinking within the company of the relative worth of men and women and their appropriate work tasks. In contrast to notions of linear progress—where period A leads to B and B is seen as an almost inevitable advancement of A, or progress—the notion of the juncture focuses on actors' ways of thinking about change over time and how earlier periods are reframed through changed narratives.

Application

The initial stage of the research involves establishing the focus of the research (e.g., the hiring of women): This focus will invariably need to be refined and redefined as the research develops. The second phase involves looking for evidence of difference over time. This can be relatively easy where, for example, you find a total lack (e.g., the absence of female employees) of the selected entity at one point in time, followed by evidence of a substantial number (e.g., large numbers of female employees) at another time. Things can get more difficult when and where differences cannot be discerned from numbers alone (e.g., the percentage of British Airways' employees who were women did not change substantially from the late 1940s to the late 1980s). At this point, the researcher needs to dig deeper to see if there are any differences in the way people are talking or writing about the selected issue. For example, while the percentages of female employees at British Airways did not change for much of the period from the late 1940s to the onset of the 1980s, women started to move into supervisory positions in the early 1960s and management positions in the 1980s. Also, there was a dramatic change in the publicity given to female employees between the 1940s and the 1960s. In the first era, female flight attendants were imaged as equal to their male counterparts and were uniformed accordingly. In the second era, the job was seen as almost exclusively female, and eroticized images of the female flight attendant were used to sell airline seats. The third phase involves delineating juncture. The answer is far

from simple and will depend on the contours of the research project and the questions asked. Do you, for example, start the second juncture where women are beginning to be employed (e.g., 1924) or do you choose the period where a substantial growth period is evident (e.g., 1930)? Mills took the most developed form of the change and traced it back to where that change appeared to begin. The fourth phase involves interrogating historical materials to gain an understanding of the dominant sense of each given juncture. This is really both a refinement and an in-depth revisiting of the data used to identify and establish the junctures. The fifth phase is analysis of the junctures to ascertain what they tell us about the question at hand. Mills research suggests that discriminatory practices are linked to the plausibility of accounts, which can be undermined and changed through challenges to their plausibility.

Critical Summary

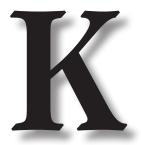
The application of junctures is particularly useful for longitudinal case studies where some form of periodization will aid the collection and analysis of data. However, its embedded critique of time as linear and progressive, and its focus on time periods as a heuristic for making sense of history rather than as a representation of history, means that a focus on junctures is more useful to postpositivist research. Its focus on historical analysis also places serious demands on the research project as the researcher is required to uncover some key or dominant aspects of the thinking of a selected group, organization, or people. In recent years the notion of the juncture has been applied to different studies of gendering, including the cloistering of Catholic nuns over time, and gendered imagery during organizational change in a utility company. However, it could also be applied to a range of foci such as technological, political, scientific, environmental, or social change.

Albert J. Mills

See also ANTi-History; Archival Records as Evidence; Dialectical Materialism; Discourse Analysis; Formative Context; Genealogy; Historical Materialism; Isomorphism; Modes of Production; Narrative Analysis; Organizational Culture; Praxis

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KNOWLEDGE PRODUCTION

The pursuit and production of knowledge can be traced to the first ideas about the universe, work tools, and languages of ancient humans, and to the histories of civilizations. Knowledge production recognized in modernity is dominated by the Western history of the development of scientific knowledge that produced the disciplinary structure of science. More recent models of knowledge production are characterized as application oriented and involve multiple stakeholders and epistemologies in the inquiry. Case study research, a method of knowledge production, emphasizes the utilization of multiple sources of information and is widely used by researchers to investigate various phenomena within their real-life contexts.

Conceptual Overview and Discussion

The taxonomy of knowledge production models consists of what Michael Gibbons refers to as "mode 1" and "mode 2." In mode 1, the research inquiry follows the set of ideas, values, methods, and norms defined by a discipline, where the mechanism of peer review acts as a quality control to add new knowledge to the existing scholarly base. This mode is an exemplum of present-day university research assessment and promotion criteria. Mode 2 differs in terms of its focus on problems in formulating the research inquiry and on context in identifying the solution space, which reflects the rise of transnationalism in research and

transcendence of conventional academic divisions when undertaking social inquiry, also known as multidisciplinarity. This mode accommodates the commoditization of research, crossing of disciplines and sector lines, multiple stakeholder interests, and the involvement of social movements, activists, and nongovernmental organizations (NGOs). Notable examples of models belonging to mode 2 include the innovation system that dominates science and technology; the "triple-helix" that reflects university-industry-state research and development partnerships and postacademic, which describes the emergence of new disciplines. The new models of knowledge production mirror the changes in research practices in the domains of biotechnology, materials science, and microelectronics and are often seen as enablers for communication between science and practice.

Although the two modes described above diverge on the nature and scope of the research inquiry and in their dissemination culture, they unify in the pursuit of truth as determined by the logical framework of the scientific method. However, critics argue that the categories and structures that have exercised a generative power over the production of knowledge about the world over the past three centuries fail to acknowledge the importance of (and sometimes subdue) indigenous systems of knowledge. For instance, in industrialized nations, innovation is related to formal systems such as the university or research laboratory, whereas in developing nations innovation occurs within informal traditional systems of knowledge that evolve through the contributions of grassroots innovators such as farmers, artisans, nomads, indigenous peoples, and ethnic groups. The accepted order of "knowing and doing things" as defined by modes 1 and 2 precludes these distinct knowledge production models, and denies them space within the recognized body of knowledge. One can see indicators of change within the gray literature of NGOs that incorporates community knowledge and promotes global knowledge production tools such as information and communications technology (ICT) and notions of appropriate technology. However, a fundamental shift requires an intervention similar to that of the 17th-century groups of modernizers who became interested in new ideas and started to turn away from Aristotle and other ancient texts and followed new paths like Descartes' program of inquiry or Francis Bacon's vision that science could be used to improve the lives of people.

The ongoing debate on the limits of science that generated alternative models and approaches to knowledge production, aims to increase contact among different knowledge traditions and allow space for the intermingling of traditional and contemporary, local and global, distinct and universal knowledge bases. Gerhard Van Der Linde, for example, described the network and narrative models of knowledge as not falling short of the rigor of traditional approaches to scientific inquiry while allowing for open-ended, fragmentary, and speculative forms that can take "unforeseen and unpredictable" directions. In the network model, the knowledge producer is depicted as a "nomadic wanderer" whose value of output is judged not by disciplinary or marketability principles but by its capacity to bring new insights into the domain, whereas the narrative model focuses on making sense of a situation by collecting as many viewpoints as possible and avoiding hierarchy among them. Other alternatives stem from the debate on the location of orality within literacy and knowledge production—also relevant to the narrative model. These debates challenge claims that literacy and knowledge production result primarily from the writing tradition. Such claims rule out vast knowledge sources and do not acknowledge the long history of the study of oral traditions in disciplines like history and anthropology, and even the emergence of the field of oral history and the greater concentration on orality in postmodernist/

postcolonialist studies. Knowledge management, a discipline that emerged from the information and organization sciences, views knowledge as something that is generated and cultivated, and production as a process of growth. Knowledge here has a life cycle that starts with identifying and capturing tacit and explicit knowledge-pieces that exist within a practicing community, and undergoes iterative processes of organizing, validating, augmenting, representing, sharing, and utilizing to improve performance or create "new" knowledge. This evolutionary viewpoint of knowledge is useful as it enables starting from scratch to represent and build on what is known as well as accommodates both empirical and experiential forms of evidence. While alternatives compel critical analysis and judgment, they also impart to researchers a sense of the interdependence and appreciation of the diversity of knowledge.

Application

Case studies of knowledge production described in the following paragraphs focus on modeling tacit knowledge components or experts' mental models and discovering how knowledge is transferred and utilized. Qualitative research methods including document review, structured and semistructured interviews, and focus group discussions that are used to gather information from domain experts and from explicit forms of knowledge (e.g., reports, databases). The methods used to "sketch and codify" the information obtained are concept mapping and case-based reasoning, which are complementary in that the first provides a framework for modeling internal knowledge of problem stakeholders in a visual form that can be examined and shared, and the second provides means for structuring, retrieving, and reusing this captured and stored knowledge. They also blend pedagogical methods with the technologies of information and communications that bring new quality to the task of producing and sharing knowledge. Concept mapping is based on David Ausubel's theory of psychology of learning, which considers concepts and propositions as the building blocks for knowledge in any domain and stresses the importance of prior knowledge in learning. Case-based reasoning emphasizes the use of concrete historical instances to problem-solve in new situations.

Below are three case studies based on research carried out by Gada Kadoda: (1) flood risk management in small island states, (2) public health programming in developing countries, and (3) peaceful coexistence interventions in postconflict situations. In the first two case studies, students undertook part of the inquiry within their individual projects, while the third project was conducted as assignments in which the researcher's role was to examine the dynamics of knowledge production and utilization in the situation. While acknowledging the expanse of the knowledge bases in these inquiries, the researcher should engage in a "wandering and sketching" activity to find concepts in the domain and their relationships and hierarchies, and often stopping to scrutinize a concept map with recurring elements (e.g., event, situation, process) that can be augmented with concrete instances or cases. The descriptions of the case studies outline the problem context and demonstrate the approach on domain concepts, their relationships, and potential case bases.

Flood Risk Management Problem and Experience

Effective disposal of storm water to mitigate the risks of flood events is the objective of the Barbados Government Drainage Unit, which is also responsible for maintenance and planning of drainage facilities. The drainage system uses "Suck" wells as a central method of disposal. The routine data on facilities, watersheds, and rainfall is used to assess the capacity of the system at peak storm flow conditions, determine the potential flood hazard, and identify priority locations for maintenance. Observations and data collected during and after flood events are used to assess impact and estimate drainage capacity. The tasks of inspectors include assessing drainage problems and recommending and reporting maintenance works that inform decisions to maintain an existing structure, dig a new well, design a new measure, and so on. The unit also receives information from community members, national disaster bodies, and others where the concerns in the complaint or report are investigated and a solution is proposed and carried out. The solution can be a routine maintenance task or one that is more complex that requires deliberation over alternatives and selection of the most appropriate for the situation. Using conceptual mapping, this case study investigated decision-making knowledge utilized in flood events analyses.

Concepts, Relationships, and Case-Bases

The mapping focused on two central concepts in flooding—flood event and risk—and maps for different staff levels were developed and augmented with information from impact assessment reports and complaints. They showed the relationships between the factors that determine severity of weather condition; those considered in calculating how the system coped; and others that determine drainage capacity. Another mapping followed to identify the factors considered to propose change to infrastructure, their relative importance and scales. Problem-solving scenarios were examined from assessment reports to model experts' reasoning, but it was outside the scope of the study to examine models with complete cases of maintenance work experiences that is useful for producing good practice knowledge.

Public Health Programming Problem and Experience

The main objective of the Sudan National Tuberculosis Program, as with any other public health initiative on transmittable diseases, is to identify and treat as many infectious cases as possible. The program's reporting system utilizes a centralized network of management units and treatment centers to collate data from lower program levels on cases detected, laboratory tests results, treatment follow-ups, and outcomes. The reports are used by the national central unit to manage and assess the program resources and performance, and utilized in producing international records of disease burden in populations, such as the Annual Risk of Infection. There is a general consensus among practitioners, however, that gaps exist within the current indicator sets—in particular those that can aid understanding of patients' behavior in seeking and adhering to treatment. This case study examines mismatches between mental models of program and patient.

Concepts, Relationships, and Case-Bases

The global indicators set used for country program evaluations formed the base concept map, which was elaborated with factors that staff at

management level consider in interpreting high or low figures such as resource limitation or location characteristic, signals these different figures give, information sources staff consult for an explanation, and actions they take in response. Mapping with patient participants focused on defining and categorizing their barriers to access and on reflecting on kinds of coping mechanisms they utilize. Social and economic factors that influence patients' observance of treatment were absent from records kept on patients (cases) that are used to produce program knowledge. This is argued as a barrier to learning patients' behavioral patterns and understanding program performance.

Peaceful Coexistence Intervention Problem and Experience

The information for this case study was produced from two separate consultancies for an NGO working on peace-building projects in the Nuba Mountains and Darfur in Sudan. The types of project vary according to the status of the conflict where projects of a developmental nature are utilized in stabilizing postconflict situations. This case study investigates perspectives of different stakeholders in a situation used to define two critical project criteria. The first is used to select project location and type without producing negative impacts on the situation, and the second to assess project success.

Concepts, Relationships, and Case-Bases

The mapping involved staff at service level who carry out tasks of site selection and project implementation to identify the factors they consider in selection and the signs they use to detect change in the situation. The latter were compared with perspectives from community participants on indicators of peaceful coexistence or otherwise, and on the channels and hubs they use to pass security messages to another friendly community and how kinships are determined—noting that the kinship concept is significant in the indigenous system of conflict resolution. These pieces of information were used to sketch some otherwise unseen dynamics of knowledge production and utilization in that community.

The participative and deliberative nature of the process of externalizing and expressing personal

knowledge and involving different stakeholders in a problem domain promotes collaborative and inclusive knowledge production as well as critical thinking and meaningful learning for both researched and researcher.

Critical Summary

Critical perspectives on knowledge production challenge traditional notions of subjectivity, reflect upon the truth of universalistic assumptions of knowledge in our societies, and resist its production solely in the interests of the powerful and influential. At present, most modernist knowledge production is related to innovation in science and technology industries and in research and development investments, with the goal of systematically improving processes or products. In other situations, production also involves activist groups and communities less fortunate in terms in funding and situation knowledge.

These critical perspectives recognize that knowledge can be "produced from scratch" or "sketched" by a wandering and endless research inquiry—akin to our early and free method of learning about the world, which becomes rather selective as we and our knowledge map grow. The notion of embedded knowledge is significant in old disciplines as in modern genealogy and can be utilized to study fragmented problem-solving domains, such as encoded knowledge in folktales and DNA. To what extent does the divulgence of "hidden voices and veiled memories" contribute to filling the gaps with new knowledge? How do alternative models of knowledge production facilitate critical inquiry into multiple ways of reasoning and arriving at "truth"? Can they foster collective learning and produce new research paradigms reconcilable with "normal" conceptions of research and knowledge? Whether an expansive view of knowledge can translate to pedagogy based on the classic wisdom of lifelong learning, nurture our "natural" search methods such as intuition and reflection, or improve our chances to deal with various complex global concerns can be argued, but many people believe these new methods of knowledge production have the potential to engage learners in the dialectical relationship between knowledge and injustice.

Gada Kadoda

See also Action-Based Data Collection; Base and Superstructure; Formative Context; Power/Knowledge; Scientific Method; Socially Distributed Knowledge; Theory-Building With Cases

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ENCYCLOPEDIA OF

Case Study Research

EDITED BY

Albert J. Mills

Saint Mary's University, Halifax, Nova Scotia

Gabrielle Durepos

St. Francis Xavier University, Antigonish, Nova Scotia

Elden Wiebe

The King's University College, Edmonton, Alberta





Los Angeles | London | New Delhi Singapore | Washington DC

A SAGE Reference Publication



Language and Cultural Barriers

Cross-cultural and comparative management research requires interaction with more than one cultural or linguistic group. Researchers face problems of language barriers and translation. Historically, Western scholars have often held less than positive views of other languages and cultures; however, as Western nations (i.e., Europe and North America) have gained a better understanding and awareness of different cultures, an appreciation of other nations has emerged. Today, cross-cultural research is valued for its contributions to social thought and research. For these reasons, many intercultural research projects are being conducted in the fields of business and management. However, because of difficulties that arise when translating concepts from English (the lingua franca of the business world), language barriers often prevent a true exchange of ideas and insights, especially with respect to case studies research across cultures.

Conceptual Overview and Discussion

Cross-cultural research problems tend to fall into two general areas: (1) differences in language content and (2) differences in acceptable emotional expression. Mason Haire, E. E. Ghiselli, and Lyman Porter discovered these limitations in an influential international organizational research study that was designed to help U.S. expatriates

work in overseas corporations. The goal of the study was to understand national managerial attitudes, discover the consequences of sending managers overseas, and understand executive development problems across cultures. After checking translation accuracy, the researchers found that there were problems conveying ideas between countries—even in the translation of common terms in organization science, such as *leader* and *team*. The study also revealed that concept meanings tended to cluster among sets of nations (i.e., Nordic Europe, Latin Europe, England, and the United States) as well as regionally (i.e., differences within Belgium).

The issues Haire and colleagues discovered still exist today. Recently, Bruce Stening and Marina Zhang reviewed some common challenges to cross-cultural research in the People's Republic of China. They noted that cultural factors often affect researchable questions and that there were challenges with data interpretation. In case research, where the importance of social construction of meaning is all important, the challenges of language barriers and translation are even greater.

Application

The most common problem facing cross-cultural research occurs in translation. When researchers use standard back-translation methods, they often run into problems of vocabulary and idiomatic and grammatical equivalence. An example of vocabulary equivalence can be found in the common English translation of the Chinese word

guanxi. The English translation ("connections") is often inadequate, because guanxi has multiple meanings depending on the context. The difficulty of capturing the connotations associated with the word autonomy when it is translated from English to Chinese also results in vocabulary disparity. Idiomatic equivalence poses its own set of challenges, because idioms vary greatly even among countries that share the same language. For example, Stening and Zhang pointed out that the saying "feeling a little crook" means different things in Australia and the United Kingdom and that to translate either meaning into a language such as Chinese would be a challenge. Finally, grammatical equivalence problems commonly occur because of tense differences. Translation problems occur even among multilingual research subjects. Research indicates that people can answer the same question differently depending on the language used to ask the question.

Another common problem with translation occurs when scholars simply translate existing questionnaires or research instruments into different languages. The problem with this strategy is that an instrument developed to measure something in Culture X may not be valid in Culture Y. For example, a study of more than 1,000 Pacific Asian, British, and American managers by Stening and J. E. Everett found that managers tended to use different midpoint and extreme responses depending on their country. This suggests cultural issues at play—for example, the Confucian virtue of "doctrine of the mean," which values avoiding extremes. Cultural biases also affect performance rankings, as noted in a study by Jiing-Lih Farh, Gregory Dobbins, and Bor-Shiuan Cheng pertaining to the modesty bias of Taiwanese and U.S. workers. The latter consistently rated their performance as being better than their superiors, whereas the former showed the opposite trend. Some scholars have also uncovered cultural bias in responses to survey questions. For example, Chinese society influences its workers to answer in a way that is less than truthful (i.e., by describing how they wished China to be rather than how it really was). Obviously, appropriate tests should be administered in order to account for culturally dependent attitudes (i.e., authoritarianism) or traits (i.e., intelligence). However, it should not be assumed that current researchers are simply unwilling to apply the

appropriate tests. In some cases, the problem is a lack of indigenous research instruments. For example, the cultural revolution in the People's Republic of China hindered the development of academic disciplines such as psychology and sociology; consequently, Chinese researchers have developed very few research instruments of interest to management academics. This kind of problem is further compounded in countries like China where there is tremendous linguistic and cultural diversity.

Another important issue in cross-cultural case research is response set bias. The idea that some groups tend to favor certain responses over others (i.e., extreme, neutral, agree, disagree, etc.) has been borne out in research. For example, in a study assessing the impact of language on response styles by Anne-Wil Harzing, two matched samples of respondents replied to a questionnaire either in their native language or in English. Of the 26 represented countries (from North America, Latin America, Asia, and all regions of Europe), Englishlanguage questionnaires showed more "middle" responses on a ratings scale, whereas questionnaires in the respondent's native language showed more "extreme" responses. Put differently, the Englishlanguage questionnaire led to more middle responses, whereas the native language questionnaire led to more extreme responses. In addition, the hypothesis that a lack of English language competency may lead to a more neutral response to English language questionnaire was also supported by the data used in the study. However, matched samples of respondents were not used for the United Kingdom and the United States because these two were the only English-speaking countries in the sample.

An analysis revealed that the language of the questionnaire more significantly influenced response styles than English-language competence. This supports the conclusion that there are important differences in interpretation from one language to another that may have to do with scale anchors. Similarly, Kevin Voss and colleagues showed that there were country-based differences in the intensity of feeling associated with points on a ratings scale. For example, "good" was associated with a score of 74–87 in English but 91–95 in the Japanese translation.

Scholars have suggested that cross-cultural and language barrier problems can be avoided if scholars become more knowledgeable about the languages and cultures they study. Immersion through travel or development of language competence can help the researcher gain cultural insight and sensitivity. This, in turn, will help them to develop better tools to examine their research problems. Another suggested way to avoid linguistic and cross-cultural research barriers is to pay attention to the limitations of surveys, in particular response set bias. Standardizing scores may help overcome bias, although this has its own limitations. A better approach would be to design more effective questionnaires that require respondents to more carefully consider their answers; for example, the inclusion of more positive and negative statements would help to overcome acquiescence or disacquiescence (i.e., the tendency to agree or disagree with an item regardless of content).

Finally, researchers have begun to use investigative methods other than surveys because qualitative, hypothesis-generating methodologies such as ethnography and case studies, aimed at generating locally grounded theories, would be better for making intercultural comparisons in business and management research. That is where the issue of language barriers becomes central.

Critical Summary

Cross-cultural research makes valuable contributions to business and management research, especially with respect to case research. However, it is often difficult to translate concepts from English to other languages, or vice versa. Previous studies have shown that cross-cultural research problems tend to fall into two general areas: (1) differences in language content (i.e., translational equivalencies) and (2) differences in acceptable emotional expression (i.e., cultural bias). Some ways of overcoming intercultural research problems include having scholars be more knowledgeable about the cultures they study (i.e., immersion or language classes), paying attention to survey limitations (i.e., standardizing scores and designing more effective questionnaires), using other investigative techniques (i.e., ethnography and case studies), and selecting translators fluent in languages involved as well as familiar with the field of the research study.

Basu Sharma

See also Comparative Case Study; Cultural Sensitivity and Case Study; Intercultural Performance; Qualitative Comparative Analysis; Researcher–Participant Relationship

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Langue and Parôle

The terms *la langue* and *la parôle* are fundamental to the linguistics of Ferdinand de Saussure. Part of Saussure's terminology includes a distinction between the *rules* constituting a language (*la langue*) and *specific statements* (often called *speech acts*) made within that structure (*la parôle*).

Conceptual Overview

Although Saussure worked in obscurity in his own lifetime, since the 1960s Saussurian linguistics have become influential as the conceptual underpinning of the heterogeneous group of approaches to social theory often termed *structuralism*, *poststructuralism*, and *postmodernism*. The most popular representatives of this scholarship are Michel Foucault and Jacques Derrida, although they are

but two among quite a large group of scholars whose studies of the social construction of reality were paradigmatically structured within the "metaphor of text."

The distinctive assumption of Saussurian linguistics that makes it foundational to constructionist inquiry is the principle that the *signifier* (the name, the word) is arbitrary. From this, it follows that the boundaries of meaning represented in language are socially produced and not something that can have a natural or objective reference point. Think, for example, of one of those popular novelty sets of refrigerator magnets containing a hundred or so pieces, each with one word printed on it. The set as a whole constitutes la langue, and any specific statement I may make with them is an example of *la parôle*. It is significant that, although I can make a great many different statements with the words contained in one set, I cannot make just any statement I might wish. There are limits to la parôle, and these are determined by the boundaries that constitute la langue.

Note also that these magnet sets are usually themed; for instance, many erotic sets are sold. Although such "languages" are rich in their abilities to describe love and sex, they are notably weak to express theology, economics, and many other notions. "Natural" languages (those found in society) also have this quality, which is one factor that gives linguistic analysis great power: Because the language reflects the values and norms of the society, its structure shows what must/can be thought or done. Its absences show what cannot (permissibly) be thought or done.

The distinction between *la langue* and *la parôle* is important, because analysis of either is valid as scholarship, but they are quite different objects. Just as a gun is not a murderer even when it is used to commit murder, a language is not a speech act, nor is it merely the sum of all speech acts in that language. The language is a system of rules defining what speech acts mean in that language; to confuse one with the other is a significant methodological and conceptual error. To return to the erotic refrigerator magnet set, I might conduct research on individual values and attitudes by recording what statements a group of subjects choose to create. This would be research of la parôle, speech acts. From this I might learn about the cognitive functioning of individuals. I might compare responses based on gender, age, or cultural background to better understand how these groups differ in attitudes toward sex and love. I could, however, learn very little from such research about *la langue*, because that would be the set of boundaries outside of our research and that determine the limits of that research. For instance, we could not conclude from such research that our subjects were obsessed with sex because it is the language itself that constrains their speech acts largely to sex-related notions.

How might we study la langue? We must move outside its boundaries. One strategy might be to study the social values that result in such a language set being available. That a sex-related lexicon is a popular sales item tells us some things about this language community. On the one hand, it is sexually tolerant enough to permit the sale; on the other, it is sexually conservative enough that such a sale has titillation value. Another strategy might be to compare this language community with others. Still another strategy might be to attempt to find the meanings of what is absent. This often leads to one or another form of research that has a critical orientation in that it seeks insight through valorizing the views of the marginal. Returning to our subject group who made the initial statements, we could ask what statements people wanted to make but were unable to because the language did not allow it. We might find that the boundaries of la langue do not reflect the values or permit expression of the realities of the deeply religious, the socially conservative, women, persons from another culture, and so forth.

Application

Across the social sciences there are examples of more personally/interpersonally oriented research that can be contrasted with more structurally oriented examples. These analogize to the *langue-parôle* distinction. In anthropology, for instance, Margaret Mead's naturalistic tales of specific lives in Samoa (*la parôle*) can be contrasted to Claude Lévi-Strauss's attempts to decode a transcultural *langue* of meanings—the raw and the cooked, for example. In organizational studies, most research claiming to be interpretive or narrative has analyzed speech acts, although only a small portion of this would have done so with specific reference to

Saussure. The minority that has would probably claim to be discursive. Analysis of la parôle, then, continues apace in most qualitative research. It is not a problem that individuals who are unfamiliar with Saussurian linguistics do not term such research analysis of *la parôle*. There is greater danger of confusion in the emerging stream of research claiming only to be discursive or to use critical discourse analysis. Such work implicitly appeals to the Saussurian langue-parôle distinction but often does not operationalize that distinction in the research design. It is important to be clear whether discursive research focuses on la langue or la parôle. Either may be the subject of research, but not both simultaneously. One can conduct useful research looking only at speech acts, but if this is the case then appeal to discursive linguistics is moot, because an adequate epistemology and methodology for studying speech acts already exists in several forms of interpretive inquiry, for example, ethnographic, dramaturgical, or speech analysis approaches.

Critical Summary

Structural analysis using a textual approach has primarily been done by scholars claiming to be working from a postmodernist or poststructuralist perspective. This is likely to change rapidly in the near future, because postmodernism as a school of thought has long since lost its intellectual energy, and it is becoming increasingly difficult to justify what it would mean to be a poststructuralist. The metaphor of text is thriving, but what forms it will next take are difficult to predict. The Further Readings section includes references indicating some of the heterogeneous directions that are arising to supplant "post-"culture.

Roy Stager Jacques

See also Postmodernism; Poststructuralism; Signifier and Signified

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LAYERED NATURE OF TEXTS

According to Robert Yin, a well-known advocate of case study research, the strength of case study is its ability to examine in depth a case within its real-life context. This involves a consideration of the various layers of text, spoken or written, that help to create a holistic rendering of the case. Although the term *layered texts* is more often associated with hermeneutics or the interpretation of language to aid in understanding, which is the goal of interpretive research, this entry describes how studying layers of text might also be applied to positivist and critical research agendas.

Conceptual Overview and Discussion

Layered texts might be compared with newspaper color photos that are printed using four layers of ink. Individually, each layer offers little information to help the viewer makes sense of what the photo represents, but together the various inks provide a complete picture. Similarly, the metaphor can be applied to the text of cases, because each layer contributes to the understanding of the other layers as well as to the overall picture of the case.

Cases exist within multiple contexts with various actors, who often hold different perspectives. Each of these contexts could be considered a layer of text. An analysis of the text describing the various layers provides insights into how the actors influence and are influenced by the various contexts and other actors. Analyzing the interaction, the discourse and the multiple perspectives the various actors hold, provides a more complete picture of the case. Because of the complexity of cases, it is impossible to examine all contexts or perspectives associated with it; therefore, cases must be framed to limit the number of contexts and actors under consideration.

As with other forms of qualitative research, case studies may be examined in numerous ways depending on the purpose of the case study and the philosophical orientation of the analyst. Although there are several philosophical orientations or paradigms one may assume when analyzing research, three that most often guide research agendas include (1) the positivist, (2) the interpretive, and (3) the critical. Regardless of the paradigm, case studies should use data from multiple sources, such as archival records, documents, scientific data, surveys, interviews, observations, and field notes.

Application

Research conducted from a positivistic stance assumes that theories can be tested, verified, and generalized across situations. Positivist research also assumes that the researcher's role is one of objective observer. A case study would entail developing appropriate measures (qualitative and/ or quantitative) for the constructs being studied, establishing or testing causal relationships, determining the domain to which the study's findings can be generalized, and demonstrating that the inquiry is value free.

For example, Roland Scholz and Olaf Tietje illustrated how researchers conducting positivistic case studies could examine various layers of text by employing the Brunswikian lens model. In this model, data acquisition related to the texture of the environment is followed by data interpretation, a process that relies on different types of methods to arrive at a perception, judgment, or evaluation. Their graphic illustration of this model shows the data of a case broken down to show multiple perspectives and filtered through a lens to arrive at a new theory. In positivistic research, however, the lens is often constructed by a priori conceptions of social interactions and relationships, and critics suggest, therefore, that researchers may fail to recognize that alternative conceptions of reality may exist. Most case studies tend to be conducted from a positivist perspective.

Case study research conducted from an interpretive paradigm is aimed at understanding multiple perspectives or realities that individuals hold and the process of how these realities are constructed through social interaction. The results of

the case study are often based on grounded theory, or theory that emerges from the data, rather than the researcher beginning with a hypothesis which is then tested. Examining the perspectives or layers of text can be accomplished through a variety of means to collect qualitative data and analyze it through interpretive methods such as semiotics, hermeneutics, narrative, and metaphor. These methods can provide a deeper level of understanding of the complexity of a particular case and reveal levels of meaning that are often hidden in the literal meaning.

An example of a case study using an interpretive approach was described by Gustovo Guzman, who examined a process of sharing practical knowledge in a hostile work environment. By interviewing workers about their experiences and looking at the various layers of meaning arising from the data, he unraveled several characteristics of the process that had yet to be described in the literature.

Researchers conducting a case study from a critical perspective would examine an issue in terms of systemic and inequitable structures in society that leave people feeling powerless. Methods similar to those in interpretive research are often used, but quantitative data may also be collected. Deconstruction and textual analysis are two important approaches to investigating and theorizing about relationships in society and addressing the broader social consequences of inequities. Layers of texts can also be examined through re-searching, rereading, and retelling research data to reveal different interpretations of it depending on one's positioning in society. Dorothea Anagnostopoulos provided an example of a case study using a critical perspective in which she revealed the consequences of high-stakes testing for the teaching and learning of literature in secondary English classrooms.

Critical Summary

The researcher's philosophical orientation or paradigm, from which he or she conducts a case study, can greatly influence the meaning derived from the data. Each approach by itself, however, has its limitations. Whereas some scholars heatedly debate the merits of each approach, others argue for a mixed method using quantitative and qualitative data that might better reveal the various layers of

text within a case study. Perhaps the challenge for case study researchers is to examine layers of text to understand the complexity of a case through an interpretative or critical analysis without preconceived notions of what they will find and then see how the results might compare with other cases in order to develop a theory that can be generalized.

Carol Fulton

See also Paradigmatic Cases; Qualitative Analysis in Case Study; Quantitative Analysis in Case Study

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LIBERAL FEMINISM

Liberal feminism is acknowledged as the first feminist theory that focused on the importance of equality between men and women. All feminist theorizing has political goals, and the main aim of this perspective is the achievement of a fair and just society and the removal of any barriers that prevent the full equality of men and women. Liberal feminism views men and women as equal, emphasizing the similarities between them and arguing that women can be as capable and as rational as men.

Conceptual Overview and Discussion

The historical roots of liberal feminism can be traced back to the liberal tradition of the 17th and

18th centuries with its emphasis on social justice and the creation of a good and just society, supported by a system of human rights. Many early political theorists, such as Mary Wollstonecraft, emphasized the rights of women as well as those of men, identifying the problems created by sex role stereotyping, prejudice, and discrimination, and arguing that these were oppressive for women, preventing them from fulfilling their full potential. The main focus of the theoretical approach is on the similarities between men and women with the assumption that if they are treated the same and are provided with similar opportunities there will be no gender difference in behavior or attitudes. It is an individualist form of feminist theory because it is assumed that the actions and choices that individual women make will contribute to their achievement of equality. From this perspective, gender equality does not require changing the structure of society, because inequality is not viewed as the result of general or systemic relations of oppression within social structures. Although men may benefit from female oppression, the approach does not assume that men as a social group are responsible for these injustices or for sustaining their privileged position. Emphasis is also often placed on processes of socialization that create different sex/gender roles. Any differences in the behavior or attitudes between men and women are thought to be due to such sex role socialization and orientation rather than to any innate biological or psychological difference.

Within organization studies, liberal feminists have generally campaigned for the removal of discrimination and bias and the implementation of equality laws. Organizations are viewed as gender neutral, because it is assumed that if they are properly developed and structured then gender equality can be achieved. The belief is that sexist prejudices and discriminatory policies and practices impede the proper functioning of bureaucratic organizations and upset the rationality of capitalist labor markets. Liberal feminism advocates the development of meritocratic institutional systems in which progress and achievement are based on individual qualities rather than on gender. Although liberal feminist research within organizations tends to favor positivist epistemologies that are assumed to be gender neutral, there are examples of qualitative case study research that also adopt this theoretical framework. The focus of this type of feminist research is often the persistence of sex segregation and the identification of reasons for such segregation. Gender is viewed as a variable within the research design, and usually a comparison of male and female employees is conducted.

Therefore, a main focus of a liberal feminist approach is the identification of gender inequalities in all aspects of social and organizational life and the examination of individual, social, and organizational factors that perpetuate such inequalities. A large body of work has identified the existence of a "glass ceiling" in organizations, which is believed to represent an invisible and impenetrable barrier that prevents women from reaching senior positions in organizational hierarchies. There is substantial evidence of the persistence of both horizontal and vertical gender segregation in organizations in all countries across the globe, showing that the majority of women are employed in different types of occupations from men and that they also are more likely to be employed at the lower levels of the organization. This evidence of segregation compels liberal feminists to demand reform to address gendered inequality of opportunity in the workplace, and a great deal of emphasis tends to be placed on the benefits of political and legal reform.

As a result of pressure from liberal feminists, gender equality legislation has been implemented in a number of countries. In the United States, the Equal Pay Act (1963) and the Civil Rights Acts of 1964 and 1991 were introduced to prohibit discrimination and prejudice against women and racial minorities. Similar legislation in the United Kingdom, such as the Equal Pay Act (1970) and the Sex Discrimination Act (1975), was aimed at encouraging employers to implement fair and meritocratic procedures in practices such as recruitment, training, and promotion. The main thrust of this legislation is the promotion of equality of opportunity for men and women through the bureaucratization and formalization of fair procedures. It is often suggested by those who follow the liberal feminist approach that steps need to be taken to remove or minimize the differences in the employment opportunities available to men and women. Equal opportunity policies within organizations during the 1970s and 1980s were heavily influenced by liberal feminism. The main focus of many of these initiatives was on the promotion of equality of opportunity to bring about change. Examples of such initiatives are the development of an equality policy statement and the monitoring of recruitment, retention, and promotion practices, as well as the adoption of gender sensitivity training. Within the liberal feminist change agenda emphasis is placed on the benefits of such initiatives not only for women, men, and their families but also for businesses in terms of increased efficiency, improvements in employee relations, and greater retention of female laborers.

Application

A well-known example of a liberal feminist approach in organizational research is Rosabeth Moss Kanter's book Men and Women of the Corporation, which was published in 1977. In this work, Kanter provides an ethnography of Industrial Supply Corporation (Indsco) and argues that the behavior, attitudes, and progress of male and female employees within this corporation were heavily influenced by the positions and jobs they occupied in the company. This pioneering analysis supports the liberal feminist view that organizations are inherently gender neutral and that men and women, if given the same opportunities, will behave in the same way. The starting point of her analysis was the sex segregation that existed in organizations at the start of the 20th century, a period during which there was a great expansion of bureaucratic organizations. Men were mainly employed in managerial posts and women in clerical jobs. Kanter argues that at professional and managerial levels Indsco was effectively a single-sex organization. According to Kanter, this segregation was reinforced and perpetuated by characteristics of bureaucratic systems that encouraged managers to act in particular ways. In particular, the degree of uncertainty and the need for smooth communication within senior management positions placed a great deal of emphasis on the importance of personal relationships and the need for social homogeneity. Kanter's point was not to argue that bureaucracies are inherently gendered but that men in managerial positions create an environment that is stable and familiar to them. recruiting other male managers as a means of reducing uncertainty, increasing trust, and aiding communication. Therefore, Kanter argued, the fate of women in organizations is not the fault of men but is the result of women's powerless positions in organizational bureaucracies. This powerlessness was due not to their sex but to their structural location and to their being stuck in highly routinized and rules-bound jobs that lacked visibility and support from either superiors or subordinates. Kanter recommends a number of equal opportunity strategies that are focused on changing the way that systems of work are organized and on providing more opportunity, more power, and a better balance of numbers for women in organizations. These strategies involve more innovative human resource practices and improvements in job redesign to provide better opportunities to all employees, and especially women, to progress to higher levels within organizations. The main conclusion of Kanter's thesis is that women will benefit from initiatives that ensure the proper functioning of bureaucracy and the enforcement of rational-legal authority in organizations.

Critical Summary

There is an extensive critique of liberal feminism and its approach to understanding gender and organization. One main criticism relates to the view of organizations and bureaucracies as gender neutral, as if they are gendered by accident because of individual prejudices and discriminatory practices. These critics suggest that the introduction of fair and formalized procedures have often failed to produce benefits and that the persistent evidence of gender segregation in organizations is due to gender inequality being embedded within bureaucratic structures that are designed by men and that function to serve men's interests. It is suggested that institutional changes are often insufficient to liberate women and that liberal feminism offers a weak vision of gender equality, with women required to succeed in masculine organizational structures on male terms. Other criticisms of this approach come from black and postcolonial feminists who argue that liberal feminism reflects only the values of middle-class, White, heterosexual women and has largely ignored women of different classes, race, or culture. The assumption of the approach is that it represents all women, but it is criticized for making universal claims about men and women and for emphasizing the similarities between them.

Annette Davies

See also Postructuralist Feminism; Radical Feminism

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LIFE HISTORY

A life history can be a systematic account of past events, delivered via the spoken word, to a listening audience. It is precisely because an audience is required for an oral history to be told that the communicative norms of both the speaker and the social scientist–recorder shape the record into a story about the past. In oral history research, in particular as described by the linguist Charlotte Linde, it is that creation of coherence, the comprehensibility of the narrative to the listener, that is a key part of the exercise of understanding the narrator's perspective on the past.

Individual life histories are, by their nature, case studies par excellence. A life history case study may: (a) provide insights into the social and cultural milieux of the teller; (b) examine the sensemaking mechanisms deployed by one individual; (c) provide information about the history of the larger group of which the interviewee is, or was, a part; and (d) as Alessandro Portelli pointed out, provide a view of history from the point of view of the interviewee. Often, life histories are collected to provide a more broadly informed perspective on events that are otherwise documented in written histories that may fail to record the views and experiences of nonelites.

Conceptual Overview and Discussion

Life History as Both Record and Event

Strictly speaking, what the researcher listens to directly is the life history. What the researcher produces from this collected oral account is the *record* of a life history, usually transcribed within an analytical framework and reconstituting the narrated account. The resulting record, whether in the medium of film, tape, or print, is also generally referred to as a life history. Whether the life history referred to is the recorded document or the actual spoken word is generally clear from context.

Tradition or History?

The account can refer to the tellers' own lifetime experiences, or it can be an account of the more distant past, handed down through oral transmission over generations. Some historians, including Jan Vansina, make a distinction between oral histories (or life histories) as first-person remembrances of events, and oral traditions. This distinction, however, is not necessarily held to by the subjects from whom accounts are elicited, and researchers have not found tradition and history to be so clearly separable; to have a record of one that excludes reference to the other would significantly reduce the comprehensibility of the narrative. For example, Julie Cruikshank found that the Yukon and Tagish elders she interviewed explicitly incorporate traditional stories about their ancestors into their stories about their own lives, to explain to her, as the anthropologist not yet familiar with these stories, how they are guided by the values and actions of their ancestors. Because the term oral tradition can also be taken to refer to the traditional manner of telling a life story, for example, through chant, song, or other standardized oratorical form, or to a designated ceremonially recognized audience, the distinction and the ways the terms are used by social scientists are multiple. Because many oral accounts interweave an individual's past experience with that of the more distant past as a way of explaining reasons for past events or practices, narratives designated as life histories are necessarily combinations of explanations of past experience and the contextualization that allows the interviewer (and the interviewee) a way to make sense of the story.

Life history data are primary source material for reconstructions of the past for cultures that do not have a long history of written records. There are many culturally specific narrative forms of oral history delivery that contribute to the systematic way in which individual tellings are told and to the validity of those individual tellings as well as to their future transmissibility. These include recitation the inclusion of song, chant, and other mnemonic aids, such as formulaic phrases, and systematic reference to features of the land associated with specific events. External regulation of life histories can include witnessing by designated auditors, themselves knowledgeable about the history covered, and having the culturally sanctioned authority to approve, comment on, or contest the particulars of a given account. For example, designated distinguished speakers of Tlingit, spoken in Alaska, the United States, and British Columbia, Canada, tell *shagoons* that are validated through public tellings to appropriate witnesses. These shagoons give family or clan histories that detail the exploits of ancestors who traveled to key places and often are originators of particular rights to territory and cultural property. Maori whakapapa, or genealogies, are in part life histories associated with the extended family of the teller, and some tellings by knowledgeable individuals reach back over time to explain the links between generations, to particular places on the landscape, and to sea voyages. Some culturally specific systematic life history accounts are flexible, such that certain parts can be expanded or reduced to minimal references, or even skipped altogether, depending on the particular circumstances of the telling, including the nature of the audience present. Such life history accounts, when developed in cultures that until recently did not rely on the printed word to document their histories, are an essential record for those who would understand their pasts.

Application

Early Collections

The formal collection of life histories as data for the purposes of social science research has been traced back by sociologists and historians, including Linda Shopes, to the work of Allen Nevins at Columbia University, which examined political elites in the United States in the 1940s. In the field of anthropology, however, the work began a few decades earlier. Life history interviews with members of Aboriginal/Native American groups were particularly important because in many cases there was no written history, and the history of the group was largely kept alive thorough oral transmission. Franz Boas and his students conducted what are regarded as the first life history interviews by anthropologists. Paul Radin's interviews with Sam and Jasper Blowsnake (Winnebago), published between 1913 and 1926, are perhaps the best exemplars of this early anthropological work in oral history.

The Use of Technology in Collection

Wax cylinder recordings of Omaha music were made by Francis La Flesche and Alice Fletcher between 1895 and 1897, and brief tales and memorials were recorded by other ethnographers and folklorists, but little in terms of lengthy narratives, such as those making up oral histories, could be feasibly recorded until the development of appropriate technology. Reel-to-reel tape recorders were developed and improved in durability from the 1930s to the 1960s and were followed by cassette recorders in the 1960s, affording lower fidelity but better portability to research venues. Thereafter, lightweight digital recorders have permitted the recording of longer stretches of oral history data with fewer interruptions. The relatively low cost of cassettes and digital media, as well as improved transcription software, have allowed case study research incorporating life history recordings to flourish. Recent popular life history recording projects, such as Storycorps, promoted in the United States on public radio stations, are not represented as research projects per se, but the records produced are sensitizing a wide audience to the potential of oral history records to inform our understanding of the past.

Interview Methodology

Life history methodology includes the location of appropriate research subjects, who are willing to reflect on past events of interest in the company of a trained interviewer. When members of a culture unfamiliar to the researcher are to be interviewed, significant advance preparation; establishment of

trust; and instruction in cultural conventions of respectful elicitation, including choice of venue, may be required. Elicitation devices employed in interviews may include the use of photographs of people and past events; travel to the place of past events by the interviewer and interviewee; and the introduction of additional audience members to the recording session with whom the interviewee might wish to share specific knowledge of the past, as in the work of Andie Palmer. This approach may also sharpen the focus of the research during the course of the interview itself and permit unanticipated avenues of recollection to be explored. An interview in an isolated studio, where a clear audio or audiovisual record can be produced with less chance of interruption or opportunity for digression, may be preferred by the researcher. Concerns for privacy and propriety might also dictate the characteristics of the appropriate interview venue.

Method of questioning can range from openended interviews, where topic and duration are arranged in advance and the interviewer says very little, to the use of more structured interview techniques. An *interview schedule*, that is, a set of written or memorized interview questions, worked out in advance of the interview, to be covered by the researcher over the course of the interview, may be employed. Where the known cultural conventions of life storytelling are shared by the researcher and the interviewee, interview schedules can be helpful tools. Researchers may provide more or less information to the interviewee in advance of the interview, depending on whether they are searching for spontaneous response or an account that would benefit from much prior reflection on the part of the interviewee. Subsequent transcription and analysis of interview data may be followed up with requests for clarification, elaboration, and final checks to ensure the ethical representation of the material provided by the interviewee. Some analysts use computer-assisted qualitative data analysis software to search across a large number of life story interviews for common terms in the life histories of a cohort and, especially in life story narratives collected in qualitative health research, this kind of sifting can prove useful in identifying common conditions, trends, or experiences. Many social scientists find the painstaking creation and review of transcripts of life story narratives to be a hermeneutic process; on each review and addition to the transcript, an exercise in relistening provides opportunities for increased insights.

Critical Summary

Elicited life histories afford a view of past events in a narrative framework that is interpreted by a culturally and historically situated individual. Life histories can be particularly helpful in expanding the researcher's study to include the views of participants outside of the mainstream, to produce a more fully informed written historical account. Researchers interested in the ways that individuals make sense of their pasts, including psychologists, social historians, folklorists, and anthropologists, may obtain particularly rich data from the open-ended interview, in which the organizational frameworks of the interviewee may also reveal cultural and social conventions for presentation of life stories. The life history case study can simultaneously offer insights into what the individual interviewee considers significant and reportable while pointing to issues that may be of significance to a wider segment of society. Furthermore, life histories are discursive documents; the narrative of life experience is delivered to the listening researcher audience, and the interpretation that is ultimately developed by the researcher is often much enriched by the discursive exchange with the interviewee. This exchange ultimately clarifies the interviewee's meaning for the researcher and results in a document that can expand a wider readership's understanding of the cultural and experiential frameworks of the subject.

Andie Diane Palmer

See also Audience; Autobiography; Case Study Research in Anthropology; Discourse Analysis; Ethnography; Narratives; Storytelling

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LIMITED-DEPTH CASE STUDY

Limited-depth case studies can be defined as those that use a range of research methods but in a relatively shallow fashion and are characterized by a limited number of points and periods of access to the research setting and sources of data. This precludes the use of some forms of ethnographic research, such as participant observation; narrows the scope of other research methods, such as interviews and archival research; and often places particular reliance on a few key informant interviews.

Conceptual Overview and Discussion

Because case studies are often conceptualized as intensive investigations of particular cases, where in-depth research is required to develop a holistic understanding of social relations and processes in a detailed and well-contextualized fashion, the limited-depth case study may appear a contradiction in terms. An alternative response, however, is to reject a sharp dichotomy between deep and shallow research designs and consider different styles of case study research across a spectrum. Movement to the most shallow end of this spectrum may jeopardize the capacity to deliver a meaningful case study, but there are more complex trade-offs between depth and breadth that should inform the choice of specific case study designs. In this context, both the resource constraints surrounding the research project and the value placed on comparisons among multiple cases represent crucial considerations in the evaluation of limiteddepth case studies.

Trade-Offs Between Depth and Breadth

The in-depth single-case study offers an attractive way to reconcile resource constraints with the need to understand the detailed dynamics of social relations in a specific social context. However, practical constraints mean that even these studies cannot escape from a trade-off between depth and breadth. They may prioritize deep and intensive investigation of particular actors and/or settings, but an adequate understanding of the immediate, within-case context and the wider, external context of these phenomena may require some breadth of investigation. From this perspective, exemplary forms of in-depth research may incur costs as well as gains in relation to these priorities. Although participant observation can provide unparalleled illumination of social processes in specific settings over time, it may also make it difficult to gain a holistic understanding of the wider configuration of social relations within which these processes are set. Thus, depth of research in this form can also involve some narrowness, rather than being an unalloyed virtue.

Of course, there are important variations in this respect even within the repertoire of participant observation. Thus, some variants (e.g., covert participation) may involve deep but also heavily constrained participation, whereas others (e.g., shadowing) may allow more wide-ranging but shallow observation. The extent to which narrowness comes with depth also depends upon the ways in which participant observation is combined with other methods in the overall research design. Thus, the trade-offs involved may be quite complex and only rather crudely summarized by counterposing depth and intensity on the one hand and shallowness and extensiveness on the other. Key informant interviews, nonparticipant observation, questionnaires, and documentary research may be used in different combinations that offer varied patterns of depth and breadth and may thus address the core requirements of a satisfactory case study in different ways. In particular, they may be combined in ways that provide less depth than participant observation but give access to a wider and more rounded account of the case. Furthermore, one way of thinking about the comparison and analytical reconciliation of findings from such different methods (one aspect of triangulation) is in

terms of leveraging deeper insights from a combination of research methods, many of which yield shallow findings in isolation. Therefore, researchers using such multiple methods must find an appropriate trade-off between depth and breadth in conducting any specific case study.

Justifications for Limited-Depth Research

The specific character of trade-offs between depth and breadth also depends on the resources available to the research project. Case study research is typically constrained by limited resources, especially in terms of the number of researchers involved, the time they have available, and the access they can negotiate; thus, it is appropriate to consider the circumstances in which limited-depth studies might meet the requirements of meaningful case study research—to deliver an understanding and explanation of specific social processes set within their immediate and wider social contexts and thus reconcile resource constraints with an appropriate trade-off between depth and breadth. In this regard, exploratory and theoretically driven case studies provide two rather different types of justification, though neither case provides an automatic mandate for limited depth research.

One possible justification for conducting a limited-depth study is that it will allow an initial exploration of the case or cases. Such an exploratory exercise may be able to establish some key features of the case and its context, although the limited depth will also compromise the capacity to follow up unexpected leads that are normal in exploration. Thus, a limited-depth exploratory study could be justified as a scoping exercise, to identify appropriate sites for more intensive case study research. Limited-depth studies that are theoretically driven may be justified rather differently, because established theoretical models may provide a good basis for the greater selectivity inherent in limited-depth research. First, such research may be targeted on the investigation and an analysis of social processes and contextual features that have been identified as critical by existing theoretical models. Second, such studies may draw upon existing analytical accounts of key social processes to illuminate features of the case, even when they are not directly accessible using limiteddepth methods. On these bases it is possible to

envisage that limited-depth but theoretically directed case studies could sometimes meet the criteria for effective case study research.

Application

Multi-Site Research

These considerations become particularly pertinent in the context of multi-site research. There are sometimes compelling analytical reasons for researchers to seek to conduct multiple case studies. In particular, they offer the possibility of comparisons of relations, processes, and contexts across cases that are studied according to a similar protocol. Such comparisons allow researchers to investigate the salience of different external contextual features for similarities and differences between cases and can also illuminate the scope for alternative trajectories of development among apparently similar cases. However, multi-site research requires substantial resources, and resource constraints often encourage somewhat shallower investigations. Therefore, a key question becomes: What is the best trade-off between depth and breadth to deliver a set of meaningful case studies that will allow appropriate analytical comparisons?

The answer to this question must depend on the research questions being asked and the theoretical resources that inform the research process. We should not simply reject limited-depth case studies, but neither should we automatically accept them just because they allow multi-site comparisons. Instead, the decisions about depth and breadth built into the research designs of specific examples of multi-site case study research require careful justification in relation to existing theorizing and research. For example, Tony Elger and Chris Smith justify their medium-depth but largely interviewbased research on seven workplaces operated by five Japanese multinationals in Britain by identifying the ways in which such research effectively addresses existing theoretical debates and by drawing upon insights from narrower but more intensive case studies to inform their own case studies. This example suggests that in-depth single case studies and shallower multi-site studies may complement one another, either within a research project or within broader research traditions. Thus, we need to examine the arguments for and against specific limited-depth case studies in any area of substantive research in terms of their place in wider and longer traditions of research and theorizing.

Critical Summary

We should not dismiss the limited-depth case study as an oxymoron. All case study research faces trade-offs between depth and breadth, and we should not presume that only the deepest research is justifiable. It is more appropriate to think of case study research designs as ordered on a spectrum of relative depth or shallowness. Assessments of the costs and gains of different positions on this spectrum depend upon the specific research agenda involved. The theoretical resources available within a developed research tradition may make it easier for limited-depth studies to meet the basic requirements of effective case study research, or the analytical advantages of multi-site comparisons may outweigh the disadvantages of needing to limit the depth of each of the component case studies. Limited-depth case studies cannot provide a systematic alternative to in-depth studies, but they have a role to play alongside such studies as long as their strengths and limitations are properly recognized and evaluated.

Tony Elger

See also Comparative Case Study; Exploratory Case Study; Holistic Designs

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LOGOCENTRISM

Logocentrism describes a predisposition to privilege logos, which is the Greek term for thought, speech, law, or reason, as the central foundation of philosophy. Although critiquing logocentrism is by no means unique to the work of Jacques Derrida, deconstruction is Derrida's response to Western logocentric tendencies. The essential problem in logocentric thinking highlighted by critics such as Derrida is the assumed hierarchy privileging rational thought as primary to language and philosophy while viewing speech as a secondary medium useful mainly as a vehicle for thought and writing as an even lesser medium with little inherent value on its own outside its utility in accommodating the transmission of speech over space and time.

Conceptual Overview and Discussion

Logocentrism, as it is critiqued in the philosophical work of Derrida, refers to the dominant tendency in Western texts to privilege the rational or the laws of reason in its discourses. Robert Cooper explains that a primary structural characteristic of logocentric texts is to be found in the "fixed center" of the text that serves to redirect the reader away from any potentially radical or unexpected readings. The center of a logocentric text is stabilized by reason and rational truth, and only one reading, a reading that most closely relates to the intention of the original author, is allowed. Writing is viewed as an imperfect outlet for transmitting the thoughts of the author through space and time, and the logocentric text is designed with the belief that the reader can somehow be kept in line. Derrida rejects the possibility of a logocentric text that is immune from multiple readings, regardless of the intention of the author, and sets out to upset the assumed stability of a text through his philosophical project of deconstruction.

Derrida and others who embrace deconstruction are by no means alone in their efforts to disrupt and upset Western logocentric tendencies. This philosophical project is shared by pragmatists and postmodernists, among others. Those seeking to unseat the logocentric bias in Western thought bemoan the dominance of logocentrism since Plato

usurped the privileged position of the poet and replaced it with the philosopher. Western thinking was forever altered, and deconstructionists, pragmatists, and postmodernists argue that a finer balance needs to be struck.

One technique with which Derrida upsets the rational center of logocentric texts is through deconstructing the foundation of binary oppositions that often form the core of logocentric thinking. In a logocentric text, objective binary opposition is assumed possible because of the belief that each item in the opposition is a distinct and self-sufficient entity. It is assumed that each item in the pairing is in no way influenced or contaminated by the other. Through these assumptions logocentric texts can safely privilege one side of the opposition over the other. To illustrate, consider one of the most basic logocentric oppositions: the privileging of thought over speech. In a logocentric text, thoughts and speech are assumed to be absolutely distinct entities. Thought is primary, originating in the mind of the thinker, and speech is secondary, created solely for the purpose of transmitting thought. Logocentrism views thinking as the ideal human activity, whereas speech is simply an imperfect vehicle with which we fallible humans are stuck for transmitting our thoughts to the outside world. Consider, too, the next level of the hierarchy, where the spoken word is viewed as superior to the written word. Although speech may be secondary to thinking, it is still far preferred to the written word, for writing is nothing more than the best way to ensure that our speech can traverse space and time.

In logocentric discourse the first term is the authentic concept, the superior entity, and the second term is of a lesser order, a mere derivative of the first. Derrida goes to great lengths in arguing that the logocentric bias is simply wrong because writing is much more than a vehicle for speech. In fact, Derrida offers some of his most radical philosophical innovations through what he calls "close" readings of classic texts that go far beyond any conceivable intention of the author, thus demonstrating the power of the written word to be a creative medium on par with, if not superior to, thought.

If we were to summarize the logocentric approach to meaning, we could state that what emerges is that speech is the original signifier of

meaning. Although thoughts are primary, thoughts in themselves have no method of transmission and are therefore dependent on speech. Language, the cornerstone of humanity, emerges as a process to allow our thoughts to travel across space and between people. Language produces speech to transmit thoughts and writing to transmit speech. Language can then be viewed as a system of verbal signs that signify individual thoughts. In the logocentric approach to language, the signifier (the spoken word) is always something separate and distinct from the *signified* (the original thought). Derrida explains that in logocentric thinking writing is derisively viewed as a signifier of a signifier. Speech is seen as a central development of language, while writing is marginalized. Derrida argues and demonstrates through his own work that writing—and, by extension, reading—cannot be fully understood if it is viewed merely as an external representation of speech.

Derrida terms the logocentric privileging of authorship at the heart of this view as belonging to the "metaphysics of presence." In logocentric thinking the spoken word is viewed as superior to the written word because the speaker is present, and the listener can therefore question the speaker to arrive at an authentic grasp of the underlying thought the speaker is trying to transmit. The written word is a secondary vehicle notable for the absence of the writer. If the writer were accessible, he or she would certainly prefer to communicate by speaking instead of by writing. Writing is therefore a poor attempt to substitute for the presence of speech. Derrida rejects this thinking and develops his philosophical project through close readings of texts that unearth valuable ideas with which the author, if confronted, would not even recognize in his or her own writing.

Application

Researchers hoping to advance case study method need to be mindful of Derrida's critique of logocentrism and avoid the logocentric biases that can hamper inquiry. Case study researchers should take a close look at their texts to determine whether the texts are centered on the binary oppositions Derrida deconstructs. As Cooper notes, Derrida argues that the task of the thinker is to twist free of these oppositions and of the forms of

intellectual and cultural life which they structure. As a practical example of how organizational researchers can be mindful of these oppositions, Carl Rhodes deconstructs autobiographical stories and demonstrates how a deconstructive reading yields unique insights. For example, Rhodes argues that a traditional analysis assumes that the autobiographical narrative provided is raw data acquired by a researcher who has unique tools with which to penetrate the data in a way that the individual who provided the story could not. Derrida reminds us that the storyteller strategized about the words that would be provided to the researcher, and so the seemingly clear binary opposition between researcher and research subject becomes blurry.

Critical Summary

To summarize, Derrida argues that writing and, by extension, reading, cannot be fully understood if it is viewed merely as an external representation of speech, as logocentrism proposes. Derrida upsets the rational center of logocentric texts through deconstructing the foundation of binary oppositions that often form the core of logocentric thinking, such as black—white or male–female. In a logocentric text objective opposition is assumed possible because of the belief that each item in the opposition is a distinct and self-sufficient entity. Through these assumptions logocentric texts can safely privilege one side of the opposition over the other.

One frequently cited critique of Derrida's approach to logocentrism is that notions such as metaphysics of presence are themselves not really useful concepts to the advancement of research. Perhaps the more down-to-earth pragmatist critique of logocentrism is more useful to case study researchers than Derrida and his complex philosophy of deconstruction. Andrew Wicks and Edward Freeman make a strong case for organizational researchers embracing a pragmatist point of view as opposed to an antipositivist approach like Derrida's. They argue that anti-positivists and pragmatists share similar misgivings about the Western logocentric tradition, but pragmatism avoids what they see as unnecessary complexity. Going too far in opposing Western logic could serve to delegitimize the research for mainstream audiences.

In many ways, the real value in Derrida's thinking to case study researchers is more likely to be found in the direction taken in his later works and their more explicit focus on ethics. Deconstructing logocentric biases is ultimately an ethical project, and being mindful of alternative readings or alternative narratives and the subjective nature of categories should be the more immediate task of case study researchers interested in freeing themselves from a Western logocentric bias.

David Weitzner

See also Deconstruction; Postmodernism; Writing and Difference

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LONGITUDINAL RESEARCH

Longitudinal research is carried out over an extended period of time to enable in-depth exploration and analysis of social phenomena, in particular as these develop or change. Longitudinal research is especially useful for researchers doing inductive analysis, because in its most simple form inductive analysis seeks explanations or illumination by identifying similarities and patterns emerging over time, either within a single case or across cases in a comparative case study design.

Conceptual Overview and Discussion

Longitudinal research has been used in both experimental and case study designs: to evaluate the effectiveness of an intervention or theory; to assess the validity and reliability of a previous a single, short-time frame study; to identify factors that may constrain or support the long-term effectiveness of a strategy or initiative. Robert Yin has posited that comparative longitudinal case studies have such aims and, as such, are experimental. Other experimental researchers in education have used series of pretests and posttests administered around an intervention to different groups, so that results can be compared and contrasted. David Scott and Robin Usher point out, though, that the complexity of social factors impinging on what is happening—for example, within classroom learning environments—makes it difficult to determine precisely the full implications of an intervention by time sequenced testing alone.

A strength of longitudinal case study designs is that they enable a researcher to dig deeper into such complexities by using a range of methods over time, such as repeat interviews and observations, study of documents, and small-scale questionnaires. Such ongoing interactions with participants help to build participant-researcher trust, respect, and collaboration, and this in turn increases the possibility that rich, in-depth data will be generated for analysis. Critics of these kinds of researcher-participant relationships have warned that there is a potential here for bias—a researcher may be "captured" or overly swayed by a participant's subjective views of events, or vice versa. As Anne Oakley points out, however, personal engagement in research processes is more than dangerous bias; it is the condition under which people admit others into their lives.

All qualitative research involves interactions with people as they go about their daily lives. This requires researcher flexibility, as Michael Patton notes, but the need for flexibility may be greater in longitudinal case studies. Longer time spent in field work provides more opportunities for researchers to uncover unforeseen issues or debates, and these may require reconsiderations of previous assumptions or theoretical orientations and/or shifts in the research focus. Happily, more time is available also for adjustments to be made to the

research design and questions. In such situations, however, researchers need to keep communication open and honest, ensuring that ethically appropriate agreements are reached about any changes to the original contract with participants and funders (if the latter are involved).

Engaging in early and ongoing inductive analysis in longitudinal research assists not only the management of large amounts of data collected but also, more significantly, in the building of robust interpretations, because there is time to reflect on data as they are generated and to further explore emerging findings in follow-up interviews and site visits. Often, a theme or grounded theory approach to analysis is used, but narrative analysis is also useful in enabling concurrent reporting and interpretation of chronological developments.

As well as providing opportunities for enhanced researcher reflexivity, longitudinal research can also enable increased researcher reciprocity through, for example, feeding back relevant findings to participants as a study is under way. Some difficult ethical issues around confidentiality may arise here, and researchers need to keep to the fore the research ethic of doing no harm to participants or those associated with them.

A different issue that needs consideration when feeding back research findings before a study is completed is that this may impact and change the situation or initiative being investigated. Arguably, this issue is more significant in experimental designs, and not as significant as it has been considered to be within a narrowly positivist view of scientific objective distanced research (a view that is now largely discredited). As Matthew Miles and Michael Huberman have pointed out, in contrast to the latter's common adherence to predesigned research instruments, the relatively loose and inductive orientation of qualitative research can help minimize a researcher's impact. In longitudinal action research approaches to case study, of course, feedback loops are planned for and expected. They are part of the research cycle of gathering data about a situation, strategy, or initiative; identifying problems or issues; reflecting on how these could be addressed; planning new strategies; implementing these, and so on.

Furthermore, although in early ethnographic case studies (e.g., Margaret Mead's) it was expected that researchers should distance themselves from the data they had gathered and present it in writing

that (appeared to be) objective and neutral, it is now widely accepted that no research is value free. There is recognition that sociocultural and historical contexts significantly shape both the researcher and his or her study, influencing the kinds of questions that are seen as important as well as the ways these questions are investigated and reported. Alison Jones argues that such influences should be made visible in research accounts, by putting the researcher "I" back into the text. She maintains that the researcher's revelation of his or her own theoretical position and personal interests in a research report can facilitate a reader's critical and dialogical engagement in and with it, enabling consideration of it as being one among a number of possible accounts and interpretations.

A feminist poststructuralist approach to discourse analysis can enhance the latter processes. Used in longitudinal research, this analytical approach can also facilitate deeper insights into intersecting influences on social interactions and practices. This is particularly so when the research aims to identify and illuminate varying sources, negotiations, and effects of social power, because these are produced and exercised at both the macro- and microlevels during particular periods. In this approach, discourses are understood as "social texts," as Freema Elbaz puts it. They are sets of terms and phrases that are linked to the ideas, beliefs, values, and practices of a social group, order, or field of endeavor.

Application

In Marian Court's study of some innovative shared school leadership initiatives that emerged in New Zealand in the early 1990s, the appeal of using longitudinal case studies was that these could enable a focus on the social power dynamics and influences that were shaping people's decisions as events unfolded. The potential efficacy of a poststructural discourse analysis emerged early on for her, as she listened to and reflected on the stories that teachers, parents, board members, and state agency representatives were telling her. She realized that she was hearing different discursive influences within people's accounts: some dominant views of hierarchical leadership and management, some subversive collective leadership views, and some seemingly rather contradictory combinations of these discourses. The remainder of this entry outlines Court's study and illustrates how a combination of narrative and discourse analysis can be used effectively in longitudinal case studies.

In New Zealand, during the 1980s, when the welfare state was restructured by a group of new right reformers, it was argued that an entrepreneurial business model for the public service was needed to build a leaner, more efficient nation—state for competition in a global market. A new public management (NPM) discourse and set of practices were introduced to underpin a market model of state service provision. In education, within a self-managed schools model, the previous professional head teacher role was changed into a business chief executive officer role, with responsibilities to market the school to clients (parents) and to ensure clear lines of provider (teacher) accountability and control.

Somewhat paradoxically, it was during this time that shared school leaderships, in the form of coprincipalships, emerged in some schools, raising the question of why this happened then rather than in previous times, when more a collaborative professional discourse about school leadership was in ascendancy.

To explore this question, Court undertook longitudinal comparative case studies of three primary school coprincipal initiatives. During 6 years of field work between 1994 and 1999, she interviewed (at about 3-month intervals) the coprincipals and board chairpersons and undertook other interviews with board members, teaching and support staff, parents, and some students. School documents (meeting minutes, school charters, strategic plans, curriculum and teaching plans, school reviews, newsletters) were collected and studied, and some school meetings, class lessons, and wider activities were observed. Representatives of the education agencies and unions were also interviewed to gather their views of the shared leadership initiatives. As the study progressed, educational policies, legislation, reports (e.g., Education Review Office reports), and academic literature were also gathered and studied.

Theme analysis was undertaken as data were collected, and three case study narratives were written at the completion of the field work. These quoted the participants' own words wherever possible, to capture each school community's own accounts of why and how their coprincipalship began, what happened to it, and the strengths

and limitations of its shared leadership approach and practices.

To better explore these narrative findings, Court then drew on Elbaz's approach to analysis of discursive fields, using the following kinds of questions to guide her thinking. Around what concepts and distinctions is the field organized? What terms are used? What assumptions, commitments, and values underlie these? What kinds of subject positions are available? Who can assume these? What are the possible effects on who can speak and be listened to in this site? What are the practices that are legitimized in this discourse?

Court developed a three-step, micro/macro bridging analysis, as argued for by Alan Luke, of the discursive influences in play in the coprincipal initiatives. First, she identified how the coprincipals and school community members were using a range of discourses within the (microlevel) of everyday realities of school life and teaching practices; second, she examined these practices in the light of leadership discourses identified in (macrolevel) state policy, institutional regulations, academic and cultural texts; and third, she identified and discussed patterns, interactions, and discontinuities within and between these micro/macro discursive sites.

The study not only explained how a range of discourses about educational leadership and management can shape school leadership practices but also showed how, in one school, new possibilities for a "team of leaders" approach to sharing leadership had been sparked through individuals' own critical readings of inconsistencies within and between NPM, professional, and feminist discourses of leadership. This finding demonstrated Chris Weedon's proposition that although an individual may not always be conscious of the ways that her subjectivity and practices are being shaped by different discourses, through becoming aware of the nature of different discourses, a growing awareness of the nature of different discourses in circulation can alert her to previously "hidden" new ways of thinking and being and interacting with others—and allow her to change her subjectivity and practices.

Insights into how change can occur in a social order or field were also generated. In this case, the discourse analysis revealed how individuals negotiated with others as they collectively took up, or ignored, resisted, or reformulated elements of macrodiscourses that were affecting

their educational leadership practices in their school communities.

The study's longitudinal comparative case study design also enabled the significance of context in such discursive processes to be identified. It revealed how the different sets of coprincipals responded in different ways to their different constituencies, as they developed varied practices of shared school leadership. The research analyses highlighted how in one of the initiatives some wider change was enabled, with significant shifts occurring in understandings of accountability as those coprincipals and their school community moved away from the NPM prescription of single-line, hierarchical forms of control to practices of mutual responsibility and accountability. Analysis of the other two coprincipal schools identified how dominant discourses, governmental forms of power, material inequalities, and sociocultural hegemonies of class and ethnicity were constraining wider change.

Critical Summary

Longitudinal research is a powerful tool for developing rich data for analysis of change dynamics and effects as these occur at individual, organizational, institutional, and societal levels. Within a longitudinal design research methods such as a poststructural discourse analysis can enable more penetrating explorations and explanations of such data than those allowed by more traditional theme analysis. In particular, this approach can facilitate analysis of intersections between individual and group agency within wider constraining sets of social power relations. When applied within a longitudinal comparative case study design it can add further valuable insights into how change may be effected in different sites.

Marian Court

See also Comparative Case Study; Critical Sensemaking; Juncture; Narrative Analysis; Narratives; Poststructuralism

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MACROLEVEL SOCIAL MECHANISMS

Macrolevel social mechanisms (macro mechanisms) are recurrent social processes that convey the effect of sociocultural, political, and economic macro structures (e.g., patriarchy, welfare state, capitalism) to the different macro- and microlevels of society, including individuals, social groups, and organizations. The effect they convey is very general, society- or worldwide, even though it might take specific forms due to contextual factors in individual cases. Case study is a major method to understand macro mechanisms, both their general character and specific embodiments.

Conceptual Overview and Discussion

Macro mechanisms are a link between macrolevel social structures and other macro- and microlevel social units. They explain why and how macro structures affect or shape, and can be reproduced or modified by the actions and interactions of individuals, groups, and organizations under certain conditions. They also address the question of why and how macrolevel structures can be affected and shaped by other macro structures. Macro mechanisms are embodied in particular social relations, settings, movements, organizations, and institutions. Some examples are educational institutions, government policies, laws, labor markets, international trade, industrialization, migration, urbanization, and social class relations. From a critical perspective, poverty, unemployment, and crime are some others. Macro mechanisms operate at all fields of society. The effect they convey has an impact on almost all members of society directly or indirectly. Yet, it is not uniform as it is shaped by other micro- and macrolevel case-specific factors. Macro mechanisms do not explain specific impacts and why different effects occur in different individual cases within a given context. They explain the general effect more or less valid for all cases in the context.

Macro structures and mechanisms are more theorized than empirically studied. They seem to be the subject of grand sociocultural theories. Case studies are important to show that macro structures and mechanisms exist and operate within society and shape sociocultural practices and contexts and that macro mechanisms are a means for individuals and groups to reproduce or modify macro structures. Case studies ground grand theories within concrete historical settings.

Researchers generally conduct comparative historical case studies to analyze macro mechanisms. Comparisons are made across individual cases within national or international contexts. Within national contexts, generalization occurs through similarities between individual cases. In international comparisons, generalization is achieved by linking nation-specific factors to nation-specific effects through a universal social mechanism. Comparative case analysis allows for generalization. The general effect macro mechanisms carry may not be observed in individual, but in multiple cases. Besides, the operation of macro mechanisms generally unfolds over time. Historical analysis provides researchers with a better understanding of that operation.

Another important research strategy is to select a critical case. A critical case has a strategic importance in that if it is refuted, the proposed macrolevel theory can be refuted. Critical case studies are a solution for the problem of generalization because they are methodologically a test of falsification.

Case studies also help develop specific insights about the operation of macro mechanisms within particular social and individual contexts. The operation is located within individual cases in everyday settings. Because of their in-depth approach, case studies can demonstrate how macro structures are differentially reflected in individual cases by a number of particular macro/micro mechanisms and how macro mechanisms differentially operate in individual cases due to the existence of other contextual factors and mechanisms. Thus, case studies, highlighting the specific operations of macro mechanisms, show macro mechanisms are socially and historically shaped.

Particular paradigms facilitate studying cases to understand macro mechanisms. Critical theory and research are most accommodative. The assumption is that society-level structures, through macro and associated micro mechanisms, shape and are reflected in the actions and beliefs of people in particular situations. Critical research tries to increase awareness about macro social problems and offer policy implications.

A number of problems might emerge in the case studies of macro mechanisms. First, case researchers sometimes construct accounts not grounded in the data. They offer theory-based macro mechanisms without showing the operation of those mechanisms in the case. Second, there is a risk of losing rich details in macrolevel analysis. Microlevel elements and interactions might be overlooked. Macro structures might seem to overdetermine all other societal levels. Third, there might be multiple macro mechanisms in operation and many lower-level mechanisms that make macro mechanisms operate. It may not be possible to systematize all mechanisms and their relationships. Lastly, macrolevel case research generally builds on existing theory. Researchers might tend to verify rather than falsify the theory.

Michael Burawoy provides some assumptions to justify case studies on macro structures and mechanisms. First, a social order becomes known as it responds to pressure, for example, by a researcher. Second, specific knowledge of individual cases can be compiled into a general account of social process because regimes of power structure individual cases into social processes. Third, social processes within individual cases and macro social forces are mutually constitutive. Fourth, the theorization of social processes can be extended to the theorization of broader social forces. Theory is the key. It guides the research process, constitutes case knowledge into social processes, and locates social processes within macro social forces. The goal is to falsify, not verify the theory, to extend the theory.

Application

Two examples of case research on macro mechanisms are Robert Gephart and Robert Pitter's 1993 study of "The Organizational Basis of Industrial Accidents in Canada," and Nicole Biggart and Mauro Guillen's 1999 study of "Developing Difference: Social Organization and the Rise of the Auto Industries of South Korea, Taiwan, Spain, and Argentina."

Gephart and Pitter look at several cases of accidents in a number of different economic sectors. They gather data from various sources such as public inquiries, accident reports, annual reports, newspaper articles, and interviews. Gephart and Pitter use the legitimation crisis framework of Habermas to understand these cases. In pursuit of profit and income, capitalist institutions (business and state) engage in productive activities, which produce a number of risks. While profit and income are retained for business and state elites, risks are imposed on other sectors of society. The association between profit/income retained and risk imposed remains hidden through social legitimation mechanisms, one embodiment of which are public inquiries. Public inquiries legitimize business and government institutions by creating and promoting a sense of fair investigation, democratic participation, and effective regulation in accident cases. Nevertheless, counterarguments also emerge in public inquiries. In this sense, macro mechanisms might be a means for individuals and social groups to challenge and modify rather than reproduce macro structures.

Through a comparative cross-industry case study, Gephart and Pitter show the operation of a macro mechanism as embodied in a particular government institution. They relate individual events (accidents) to macro structures (capitalism) through macrolevel legitimation mechanisms (public inquiries). Public inquiries are a link between macro structures of economy and polity as well. Through the operation of public inquiries, economy emerges as a productive structure and polity as a legitimate structure. Gephart and Pitter also develop specific insights on public inquiries possibly not observed in other embodiments of legitimation mechanism.

Biggart and Guillen analyze the success/failure of auto assembly operations and component manufacturing sectors in four countries during the post-World War II period. Economic success/failure depends on successfully linking the social and historical conditions or social organization of society with economic opportunities in global markets. State policies are the main macro mechanism that relates social organization and economic success/ failure. Social organization constrains and facilitates certain roles and supports and represses certain actors. To exemplify, in South Korea, there were competing elite families having the monopoly of economic resources and creating a patrimonial social organization. This concentration of resources would favor capital-intensive sectors. Indeed, South Korea became successful in auto assembly operations but not in component manufacturing. The link between this success and existing social organization was state policies that supported elite families and their big business rather than small producers. Looking at three other national cases, the comparative-historical analysis of Biggart and Guillen theorizes the effect of social organization on national economic sectors as a general universal phenomenon. State policies are identified as the mechanism that carries this effect, as shown in each particular case. Intra-nation differences are not a concern for Biggart and Guillen and assumed to be negligible at the macrolevel inter-nation analysis.

Critical Summary

Macrolevel social mechanisms can be analyzed successfully through comparative—historical and critical case studies, especially within critical research paradigms. Case studies are a major method for understanding both general character and specific embodiments of macro mechanisms. Case studies

are important to locate macro mechanisms within concrete historical settings. Case researchers on macro mechanisms should ground their analysis in the data, attend case-specific details, develop theoretical focus, and search for evidence to falsify. Also important is to make the assumptions explicit to justify macrolevel research with case studies.

Cagri Topal

See also Base and Superstructure; Comparative Case Study; Contextualization; Critical Theory; Extended Case Method

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Management of Impressions

The management of impressions, or impression management, refers to any attempt to influence or control the perceptions formed about us, or indeed other people, events, or objects, by projecting as well as screening the amount and type of information relayed in social interactions. The key work by the renowned sociologist Erving Goffman (1922–1982) that explores the idea of how we manage the impressions we give to others through what we say and by our body language is *The Presentation of Self in Everyday Life*. This entry specifically examines the contributions, conceptualizations, and impact of Goffman's work on the management of impressions in order to illustrate their importance to case study research.

Conceptual Overview and Discussion

Impression management is a phrase that has now entered common parlance. There has been a great deal of academic research into emotions and how we display these in order to portray certain emotions, views, or impressions about ourselves and to evoke certain responses from others. It is primarily upon the social science disciplines of social psychology, sociology, and social anthropology that Erving Goffman has made a significant impact on our understanding and application of the management of impressions. Goffman's work is often ascribed to the sociological school of thought termed symbolic interactionism. His work on impression management can be characterized as microlevel sociological theory as it is concerned with social interactions within groups as opposed to larger social orderings and structures that can be approached on a more macrotheoretical level. This tradition also tends to employ ethnographic methods such as participant observation, rather than statistically related methods, due to the focus on individual actors, actions, and social roles.

The simple shrug and the smile have the power to communicate potentially more than words alone. The goal of managing the impressions we make upon others, and consequently the perceptions that they have of us, may be a conscious or an unconscious act. Indeed, this is a key part of human socialization whereby awareness of the other and perception of how our actions and interactions cause positive or negative responses are important learning processes in our development of social skills. Impression management is an endemic feature of everyday life and daily interactions, and we all attempt it to some degree. This is why the notion of impression management is closely linked to the concept of self-presentation. For instance, when we go to work, attend a job interview, pose for a photograph, or socialize with friends, we are managing the presentation of self according to the impression we want to project at that moment in line with our goals, priorities, context, audience, and the prevailing social codes/norms.

Goffman described how impression management is carried out by individuals and groups in order to fit with the impressions that they want to convey. Thus, impression management theory encompasses concerns with image, role, communication, verbal

and behavioral cues, and perception. A key tenet is that perception impacts upon our construction of reality, which in turn influences subsequent perceptions, behavior, and decision making. Arguably one of the most influential and engaging theories to emerge from Goffman's work in this area is that of dramaturgy, a theatrical metaphor framing social interactions and impressions and our conceptions of self via unfolding scenes and events during which our actions are determined by time, space, and audience. Goffman evokes this theatrical metaphor by relating our everyday interactions, self-presentations, and impression management to performances on an imaginary stage. Indeed, the first chapter in The Presentation of Self in Everyday Life is titled "Performances: Belief in the Part One Is Playing." Therefore, depending upon the audience at that moment in time, we all play different parts such as parent, child, sibling, teacher, student, customer, and so forth. The notion of a stage upon which performances are enacted through roleplaying is also used in this way to draw a distinction between metaphorical front stage and back stage areas of our lives. These may not necessarily be physical spaces, but also temporal zones. While the front stage is that on which one is consciously performing to an audience, the back stage is where one is present but the audience is absent or different, thus meaning that the front stage performance can be suspended. The back stage tends to have greater informality and is where one feels assured that one is not being watched. In chapter 2 of the Presentation of Self in Everyday Life, titled "Regions and Region Behavior," Goffman explains that the back stage can be seen as an area where the impression given by a performance is knowingly contradicted. Offstage areas are where we reside if we are not involved in the performance. Therefore, boundaries are also significant in a dramaturgical framework and for the actors involved, as they help demarcate between, and determine access to, the various regions. Key techniques of impression management include defensive techniques that are employed prior to a performance such as rehearsals and preparation, and protective techniques used during the interaction in order to cover up any mistakes or unintended impressions.

Application

Field work in case study research, often using participant observation techniques, has applied Goffman's ideas on impression management. Goffman himself used participant observation to research his ideas for Presentation of Self in Everyday Life when he spent time living in and researching a Shetland Island crofting community in the Northern Isles of Scotland. Many of the examples he uses in the book relate to an island hotel in which he spent a lot of his time. For Goffman, his dramaturgical theory was intended to illuminate sociological research on case studies of institutional social life. The most common (and arguably best-fit) field work application for those interested in researching contexts where impression management is at play is (covert) participant observation, and particularly case studies involving specific social or economic establishments or contained institutions such as a psychiatric hospital, which was the focus of Goffman's research on Asylums.

On an everyday basis we are all engaged in managing the impressions we give to others. However, for the researcher engaged in case study research, this adds a layer of complexity to the field work and research design. For the researcher adopting a positivist frame of reference, who is trying to access truths rather than impressions, strategies may be put in place to control for the perceived bias or distortion caused by either the respondent or the researcher/interviewer attempting to impression manage or, in turn, reacting to impression management on the other's part. This is because the desire for comparability across respondents and samples is required for the validity of responses. Methods may include using a defined script that interviewers cannot deviate from, and the strict training and control of those collecting data. Other positivist researchers may want to isolate and measure impressions as specific variables.

On the other hand, interpretative researchers are more likely to use qualitative data because interest lies in the individual specific encounters in which they engage with research participants. There is no desire to control impressions; rather the emphasis is on the exchange and interaction, and understanding and unpacking encounters that are seen as specific to the individual and the context and therefore not repeatable. Postmodernists are also interested in

the interpretation of the event and the impressions given by both researcher and participants. They are fascinated by the highly fluid nature of personal interactions, and the pick and mix of cues that we use to create impressions including body language, verbal prompts and emphases, and dress.

Goffman's work has been applied to various areas and spawned new conceptualizations, particularly those with a dramaturgical basis. Many academic fields, such as occupational psychology and organization/management studies, have incorporated analyses of role play and impressions particularly in organizations and workplaces. Influential work that has taken Goffman's conceptualizations of performance and impression management as points of departure are studies by Arlie Hochschild, especially her work on emotion and emotional labor described in The Managed Heart. There is now a significant body of work in this area of emotion work that explores, especially in the burgeoning economic service sector, how certain feelings and impressions are projected to others. As with Goffman's approach, an inherent undercurrent in her work, not least in her more recent publication The Commercialization of Intimate Life, is the rich focus on details of everyday life and the various parts we daily play.

Critical Summary

The *management of impressions* concept has been influential over the past five decades. However, when used as a basis for methodological choices in field work, researchers need to be aware of limitations and constraints imposed on methods such as interviews, surveys, and overt observation due to the very nature of one's desire to control impressions. This may cause a certain degree of distortion, a particular concern for researchers adopting more positivist-leaning epistemologies.

MariaLaura Di Domenico and Nelson Phillips

See also Dramaturgy; Participant Observation; Symbolic Interactionism

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Managerialism

Managerialism is a business concept that is built around the use of general and specific techniques and practices that are designed to improve workplace productivity. These techniques and practices are used by managers to affect the organizational behavior of employees in favor of attaining certain organizational goals. These goals typically include increasing profits, changing the organizational structure to reduce costs and promote greater employee accountability, creating competition among units for purposes of innovation, and reinforcing corporate culture. In this sense, managerialism can be viewed as an ideology that closely relates to the development of the modern corporation and the rise of a managerial class to run the corporation.

Proponents of managerialism advocate the use of cross-organizational business concepts that can be applied to the administration of any organization. Managerialism has been most recently associated with private sector–inspired approaches to public sector governance, through forms of new public management (NPM). Case study research on organizational human resource practices is an important aspect behind the development of managerialism.

Conceptual Overview and Discussion

Managerialism has evolved in relationship to the role of professional management within organizations. As organizations became progressively larger and hierarchical with increasing specialization based upon the division of labor (outlined in Max

Weber's work), senior management recognized that "command and control" techniques over employees had to expand, and so began to move beyond traditional, inefficient methods. New scientific methods of administration were developed so that managers could monitor and regulate the workplace performance of employees. Frederick Taylor, an engineer, was the main promoter of "scientific management"—a mechanistic approach to managing employees step by step by breaking job tasks down to a series of component elements that promised huge increases in productivity by eliminating wasteful actions on the part of the worker. "Time and motion" observations were made by observing the amount of time and effort associated with manual labor, and management techniques were subsequently developed in order to maximize individual and group productivity. The assembly-line process is often associated with this approach by which managers control the entire process in exchange for rewarding workers financially. Workers were perceived to be passive instruments that could easily be replaced because the production process did not demand anything of them except manual dexterity and basic literacy. A set of micromanagement practices based upon a "one best way" philosophy emerged, and later adherents to the scientific management model brought in some further refinements.

In response to the structural-mechanistic models arising from the scientific management managerialist approach, less oppressive approaches were developed that took into account the potential for employees to assist and participate in the management of the organization. What is referred to as the organic-humanistic managerial approach developed in the 1920s and 1930s on the basis of sociological and psychological experimental organizational studies. The approach became a tool for those analysts, including Mary Parker Follett, Elton Mayo, Douglas McGregor, Herbert Simon, and Chris Argyris, who argued that greater forms of participatory management were the key to unlocking employee potential in organizations.

The famous Hawthorne experimental studies, which allowed researchers to understand the "unintended effect of the observer on the observed," illuminated informal group relations within organizations and the need for managerial techniques to attempt to capture an important productivity

and innovation dynamic. Successive organic–humanistic analysts worked to recognize the psychological as well as materialistic needs of employees and the consequent buy-in, which could be realized through greater participatory managerial models.

Peter Drucker, the author of many books, articles, and reports, was a well-known advocate of the participatory management approach. Described as the father of modern management, Drucker coined the term knowledge worker. Through his studies of organizational life in a number of companies, he continuously stressed the need to actively engage with people in organizations as opposed to simply viewing them as employees. Drucker argued that by engaging people in such a manner, management techniques could be strengthened as new organizational governance models developed. These emerging management models would take into account the large contingent workforce that existed beyond the traditional full-time, permanent workforce. In tandem with such "people policies," he also argued in favor of reducing hierarchy and red tape and to create more horizontality within organizations, while maintaining managerial control in the decision-making processes.

Complementing the participatory managerialist approaches of organizational theorists such as Peter Drucker was the development of new public management (NPM). NPM, which is known in the United States as "reinventing government," and in the rest of the world as new public management, developed in the 1990s. With its stress on applying business practices and values to the public sector, NPM became increasingly influential as conservative governments rode a wave of popular discontent with government in the 1980s. Such strong support was based on the promise that NPMinspired techniques could help to create the types of organizational cultures, where greater innovation and responsiveness to the needs of citizens can continuously flow. At the outset, the thrust of NPM was enhancing the power and role of elected politicians in policy making. Once elected, the ministry of Margaret Thatcher in the United Kingdom and the Ronald Reagan administration in the United States began to make significant changes to the way governments developed and delivered programs and services. The focus of the NPM movement came to be on how public sector organizations could become more capable, responsive, and innovative.

Application

Reinventing-government advocates such as David Osborne and Ted Gaebler explored a number of community-based case study examples that spoke to the need for "entrepreneurial" government and the private sector to work together—with government creating a basic regulatory environment from which the private sector could deliver public services in partnership with government or directly through outsourcing.

The proponents of NPM argued that through major service delivery innovations, managerial autonomy, administrative empowerment, and the use of performance indicators geared to competitive, entrepreneurial models of program management, the nature and quality of government services can be significantly changed and improved. For that to happen, the traditional culture of public administration would have to be tempered or even replaced by new managerialism. "Reinvention" would be an important aspect of new public sector managerialism. In the reinvention process, a new set of managerialist values in the field of public administration was created. Traditional old culture terms that were associated with public administration were supplanted with new culture, "postbureaucratic" terms designed to emphasize organizational autonomy and employee empowerment. In a "reinvented" government, core concepts of the traditional bureaucratic administrative framework-the "public interest," "administration," "functions, authority, and structure," and "cost-justification"—are transcended by other, managerial principles. These other public sector managerial principles center on considerations such as "results citizens value," "quality and value," "production," and the identification of "missions, services, customers, and outcomes." With the change in organizational values, which are more reflective of a private-sector outlook, government bodies would become reinvented as more of a focus is placed on where the organization needs to go in order to meet objectives, rather than simply being concerned about complying with myriad rules and regulations. Less of an emphasis is placed on control functions (the structural–mechanistic approach)

as a way of solving problems in a generic manner and more of an emphasis is placed on good management (the organic-humanistic approach).

While there has been much debate in the academic literature respecting the theoretical and practical merits of NPM, the impact of such thinking on how governments see themselves and the contemporary public sector reform process cannot be denied. A number of analysts have documented the interest shown by all levels of government in the development of the new public organization (NPO) managerialist perspective: one that will transcend traditional bureaucracies' narrow focus on position, rules, process, and centralized command and control power, for a postbureaucratic organization that will be devoted to citizen service, leadership, collaboration, change- and results-orientation, decentralization, and social responsiveness. Case study research of "well" or "high-performance organizations" (HPO) has been used to establish best practices that government departments and agencies are invited to adopt.

Critical Summary

Managerialism, as an evolving set of business techniques and practices, has had a significant impact on the way in which senior management in modern organizations attempts to motivate employees in order to increase productivity. From structural—mechanistic models to organic—humanistic managerial approaches to new public management, managerialist practices have been refined to integrate employees into organizational planning and decision making while maintaining control in the hands of managers.

Andrew Molloy

See also Case Study Research in Business and Management; Case Study Research in Business Ethics; Case Study Research in Public Policy; Critical Theory

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MASCULINITY AND FEMININITY

Masculinity and femininity refer to values, meanings, and behaviors culturally associated with men and women, respectively. They represent concepts associated with gender identities and practices and do not necessarily coincide with the categories of men and women. The terms are often used in their plural form to refer to more than one masculinity and or femininity and to more than one mode of being masculine and/or feminine. Masculinities and femininities are regarded as contingent, fragmented, and socially constructed images of maleness and femaleness.

Conceptual Overview and Discussion

Masculinity and femininity are discursive constructs (practices and symbols) that provide a means for gender signification. The analysis of masculinity and femininity in the social sciences allows a discussion and interpretation of gender identities that is not tied to the biological sexes. By avoiding a comparison between men and women as distinctive groups, the use of the abstract terms masculinity and femininity permits a focus on behaviors and practices that may be acted by both men and women while being identified as either masculine or feminine. Thus, by allowing some decoupling of masculinity and men and femininity and women, one may suggest that, for example, women in management may often display masculine behaviors. On the other hand, it is often proposed that those men who display more feminine behaviors are not as successful in bureaucratic organizations as the more masculine men.

Emphasis on masculinity and femininity represents a move from an essentialist perspective,

which focuses on the analysis of men and women as biological entities. Research engaging with masculinity and femininity and/or masculinities and femininities often draws upon poststructuralism and poststructuralist feminism in acknowledging the cultural and historical contingency, the fluidity and diversity of gender identities. Within such perspectives, gender identities are socially constructed and any categorization of women or men as homogeneous groups is rejected. Similarly, masculinity and maleness and femininity and femaleness are seen as precarious and unstable subjectivities that are contingent upon historical, social, and cultural backgrounds and are influenced by differences in relation to various aspects including class, occupation, age, religion, ethnicity, and sexuality.

Despite the recognition of the socially constructed meanings of the concepts of masculinity and femininity and the further clarification of their fluid and contingent nature, their use in research can still easily draw upon and reproduce cultural stereotypes of men and women. This is particularly evident when they are used with reference to predominant images of what constitute being masculine or feminine. Gender research, which recognizes the multiplicity of masculinity, also frequently emphasizes the dominance in work organizations of a particular form linked to individualism, competitiveness, instrumental rationality, and emotional control. On the other hand, while recognizing the multiplicity of femininity, the dominant form is often represented as emotional, nurturing, empathetic, supportive, receptive, intuitive, and submissive. In the gender and organization literature, often the "hegemonic" form of masculinity (associated with control, rationality, and competitiveness) becomes the singular form, the only focus of analysis and the embodiment of management (management as masculine). Such a position is problematic because it repeatedly reinforces the stereotypical categorization it seeks to overcome.

Masculinities and femininities continually shift and are embedded in power relations that may influence the dominance or subordination of particular forms in relation to the others.

Considering a basic hierarchy in the workplace, images of masculinity among shop floor workers will differ from those of white-collar workers and those of senior management. Among each of these categories there will also be differentiations

between, for example, paternalistic and autocratic management, although both forms are still seen as masculine. In acknowledging the influence of power relations in the emerging of specific forms of masculinity or femininity, the significance of class is also fundamental. Masculine and feminine working-class identities differ from middle-class and upper-class gender identities.

Application

Within management and organization studies research, the focus on critical gender analysis of men and masculinities is a phenomenon that emerged in the late 1970s and 1980s. Until then, malestream thinking was applied across most disciplines that underpin management research. As highlighted above, despite a concern for the socially constructed nature of gender, a focus on masculinity and femininity is often defined by the analysis of men and women as biological beings. In order to avoid this, and to follow a poststructuralist tradition, gender analysis can focus on the processes and practices of construction and reconstruction of gender identities within specific occupational positions (e.g., manager, secretary, receptionist, company director, etc.) and/or within specific organizations or sectors. In such cases the analysis of the organizational culture(s) becomes intertwined with the analysis of the gendered processes and practices.

In gendering organizational analysis, a significant factor is the investigation of how organizational structures, processes, and practices may be understood as masculine and, often less significantly, feminine. Gendering organizational analysis refers to the process of highlighting how organizational processes and practices are gendered and how gendered practices are founded on masculine and/or feminine values. Most commonly, in practice, such analysis often reveals the dominance in management of masculine, middle-class values that generally undermine the contributions of women, other individuals, or minority groups that do not fit in with that particular value-attribution system. Conversely, analysis of service and administrative work cultures exposes the language of care, support, compassion, and subordination associated with femininity and feminine work.

Discourses of masculinities and femininities are not only historically and socially constructed, but

are also politically and organizationally located within occupational communities. One example of the use of masculinity and femininity as discursive constructs in organizational analysis is Mats Alvesson's ethnographic study of an advertising agency. This research is of particular interest because it provides an analysis of how gender is constructed in what could be described as a more "feminine" organizational context (based on intuition, feelings, personal opinions, and on nontangible and ambiguous results). The case study demonstrates how gender identities are constructed in everyday lives and are reconstructed through relationships at work. Both men and women in the advertising agency studied by Alvesson judge the appropriateness and consistency of behaviors with the gender role and collaborate to construct rules of masculine and feminine images coherent with the specific "feminine" organizational culture. Although the work context can be considered feminine, the distribution of labor at the agency is typical of most workplaces. In fact, the organization employs an approximately equal number of men and women, yet men hold the senior and creative posts while women hold the lower, coordinating, practical roles. The analysis focuses on the effects that organizational inconsistencies (a feminine organization managed by men) have on men's and women's identity work. Such inconsistencies refer to the pronounced status and power differences among men and women that coexist with the organizational emphasis on social relations, sensitivity, and emotionality. In particular, the study shows how men's positions are shaped by the highly ambiguous and contested environment of advertising work. It also demonstrates how men structure the gender relations at the workplace in a way that preserves their masculinity. This study, based on an interpretative approach, focuses on the production of meanings and on exposing and interpreting the processes of meanings construction, negotiation, and reconstruction by the actors involved within the setting. It exposes discourses of masculinities and femininities predominant in the organization investigated and uses such complex discourses as interpretative devices to help understand and explain the gendered culture of the organization. In addition, the analysis exposes unequal power relations between men and women within an environment that would be considered

feminine if the analysis had not focused on the workplace relations and the identity work undertaken by the employees.

Critical Summary

Studies of masculinities and femininities in social processes represent a means to access meanings and practices of gender production that lead to a more in-depth understanding of inequalities and discrimination. Discourses of masculinity and femininity are powerful analytical and interpretive devices for exposing the effects of gendered practices and for challenging gender subordination and oppression. To avoid the articulation of singular and stereotypical images of femininity and masculinity, gender analysis needs to focus on practices and analyze the roles that such practices play within a variety of organizations (e.g., bureaucratic and nonbureaucratic) in maintaining and reiterating gender inequalities and oppression.

Vincenza Priola

See also Gendering; Liberal Feminism; Poststructuralism; Poststructuralist Feminism; Radical Feminism; Sexuality; Subjectivism

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MEANS OF PRODUCTION

The means of production are the instruments, infrastructures, and materials employed to produce

goods and services. The term covers the physical or nonhuman requirements of production but not human techniques and abilities. According to Marxism, case study research should be vitally concerned with studying the historical development and the social control or ownership of the means of production. It conditions all other aspects of society. Development of the means of production is a driving force of history. Control of the means of production is the basic axis of power, conflict, and exploitation in society.

Conceptual Overview and Discussion

Marx regarded the development of the means of production as a necessary but insufficient condition for communism. Unlike premodern visions of a classless communal society, Marx's vision highlighted the potential of modern industry's advanced means of production for overcoming scarcity and achieving abundance. Accordingly, Marx was highly impressed by the development of the means of production in his own day.

In the opening sections of *The Communist Manifesto*, Marx wrote that the bourgeoisie were continually revolutionizing the instruments of production and thereby the whole of society. The rapid improvement of the instruments of production had greatly advanced means of communication and hence drawn all nations together. The bourgeoisie had done away with scattered means of production and centralized them. Marx concluded that modern bourgeois society had conjured up immense means of production; but, he predicted, they would soon slip from the grasp of the bourgeoisie into the hands of the proletariat.

In retrospect, Marx is generally praised for appreciating that advanced means of production would create unprecedented prosperity and alter society immensely on a global scale. But key criticisms have been advanced. First, Marx did not appreciate the major environmental consequences of the revolution in the means of production. Second, he was too optimistic about overcoming scarcity. No matter how far the means of production advance, positional goods (Fred Hirsch's term) remain scarce. Goods that have value because of their status—whether exclusive, cool, prestigious, hot, or alternative—cannot become abundant.

A society's means of production is just one element of its forces of production: the other is its labor power. The reason for this is that means of production are themselves inert unless acted upon by labor power. Means of production are nothing but empty fields or factories or offices without labor power to put them to work. The latter refers to the exercise of human mental and physical capabilities in production. This duality within the forces of production, or what Marx also called the productive powers of humanity, has given rise to a tension within Marxist thought: one strand of Marxism gives priority to the technological determination of history; another emphasizes praxis or the importance of the creative work and struggle in history. The former strand has a deterministic quality; the latter has a more voluntaristic quality.

In turn, a society's forces of production are but one part of its mode of production. A mode of production is composed of both the forces of production and the relations of production. This is because of the crucial role of property and of power. A society's relations of production consist of the ways its productive forces are owned and controlled. Production relations give rise to classes and class conflict. In precapitalist modes of production involving slavery and serfdom, the masters owned and controlled both the means of production and the labor power of their serfs and slaves. In capitalism, the bourgeoisie owns and controls only the means of production; the proletarians own and sell their labor power in return for wages. In communism, society as a whole would own and control both the means of production and the labor power of its members. Control of the means of production is one of the main criteria distinguishing different modes of production. Under capitalism, the means of production are privately owned and controlled by the bourgeoisie. Under communism, they would be held in common ownership.

Marxian thought offers the following set of categories:

- Means of production + labor power
 = forces of production
- Forces of production + relations of production
 = mode of production
- Mode of production + political and cultural superstructures = social formation

A major controversy in Marxism concerns the relationship between the forces of production and the relations of production. In the preface to A Contribution to the Critique of Political Economy, Marx outlined his basic theory of history. He wrote that as the productive forces of society develop in history, they come into conflict with the relations of production or property relations of society. At that point, the relations of production become a fetter on the forces of production. That provokes a social revolution to establish new relations of production.

The idea here is that initially the development of the productive forces leading to modern industry began under feudalism. Sweeping away the fetters of feudalism, early capitalism unleashed the productive forces, allowing the advent of modern industry. But once modern industry had developed, capitalism became a brake on the further development of the productive forces. No longer progressive, capitalism would force industry to stagnate, or at least not advance as much as it might. Only a new advance in relations of production with a transition to socialism can once again unleash a new forward leap in the productive forces. That leap would be to a society of abundance in which scarcity is finally abolished.

It is quite widely agreed that Marx's view of capitalism as a fetter on the further development of the productive forces is no longer defensible. Long after Marx wrote, capitalist relations of production continued to stimulate further advances in development of the means of production and the efficacy of labor power. Nor did the advent of socialism inaugurate a new stage in the productive forces. After seeking to catch up with the capitalist countries, the socialist countries eventually found communism became a fetter on their productive forces.

Application

With Marx, as with his followers, one major application was to anticipate the advent of communism. As the means of production advanced, so communism drew nearer. It followed that the country with the most advanced means of production would lead the way also toward communism. This is why Marx devoted so much attention to studying the case of Britain's industry.

Much more is now known about comparative industrialization, thanks to case study research. In a collection of case studies on the history of European port cities, Andrew Gibb's study of Glasgow illuminates that city's two-phase industrial growth in the 19th century. The first phase saw commerce and cotton textile manufacturing ascendant; the second phase late in that century brought heavy industry, especially shipbuilding. Glasgow's position in the middle of an iron and coal district marked it off as distinct from hitherto similar ports such as Genoa, Liverpool, Nantes, or Malmö.

Another sort of application has been to understand the course of history. According to G. A. Cohen's theory, the primary dynamic of human history as a whole is the development of the forces of production. Owing to human rationality, people continually seek ways to overcome scarcity. This leads them to devise ways to improve their means of production and to make their labor power more effective. As a result, the productive forces have a tendency to develop. Even though there may have been in the long run of human history periods of stagnation or even of decline in the productive forces, the general tendency has been improvement. As productive forces develop, they come into contradiction with the existing relations of production. This undermines the prevailing regime of ownership and power in production, and in due course a new regime emerges that is congruent with the productive forces. Hence, a new mode of production is born. Overall, this theory depicts history as a very long-run trend of steady cumulative evolutionary growth in the productive forces.

Critical Summary

Case study research that focuses on the means of production can take two main forms. Either it may suppose that the means of production are one among other significant aspects of society. Or, it may arise from the view that the development of the means of production is of paramount importance as the engine of history.

Martin Hewson

See also Base and Superstructure; Class Analysis; Critical Theory; Dialectical Materialism; Historical Materialism; Modes of Production

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Medical Decision Making Under Uncertainty

See Decision Making Under Uncertainty

MENTAL FRAMEWORK

Detective work is a good analogy for case study research. When solving a crime, a detective's "investigation" occurs at two levels. The first involves collecting evidence (i.e., carrying out data collection) and the second involves simultaneously entertaining hypotheses about how and why the crime occurred. The detective's hunches (i.e., hypotheses) and theories about the crime, tentative at first and later becoming firmer as more evidence is collected, may be considered the detective's "mental framework." A case study investigator's mental framework exists and evolves in the investigator's mind and private notes. The investigator does not openly espouse this framework when interacting with others. As the good detective may not reveal her or his crime-solving hypotheses until much evidence has been collected, the case study investigator also keeps the mental framework to her- or himself.

Conceptual Overview and Discussion

Mental frameworks are important for case studies because researchers need to keep their case study

questions, theories, and hypothesized relationships in their minds throughout the process of collecting case study data. Other research methods may not necessarily have such a requirement. For instance, when doing experiments, data collection consists of conducting a large number of trials, either testing a series of human subjects or else manipulating some apparatus. The successful collection of data from each trial depends mainly on adhering closely to a prescribed set of procedures, and in many cases the data for an experiment are collected by research or laboratory assistants who may not be aware of the main hypotheses or theories underlying the experiment's design. The assistant's entire focus is on the proper and careful execution of each trial. A mental framework is absent because the study's questions, theories, or other topics being investigated are not on the assistant's mind.

For an explanatory case study, the framework held in the case study investigator's mind consists of the questions, theories, and hypotheses being studied. If the case study is a descriptive study, the framework consists of some definition of the subject of the study and of the study's scope. Similarly, if the case study is an exploratory study, the framework consists of an understanding of what is being explored and why, and what the investigator hopes to learn from the exploration.

Application

In conducting case study research, the mental framework supports three important functions. All three functions demonstrate the interaction between the framework and the data collection process.

First, the framework should contain sufficient questions and answers that are central to the topic being studied to start and to continue to define a line of inquiry. This includes what evidence to seek, in what order, and from what sources, as well as the broad lines of inquiry work that will reveal the issues for the entire case study. More specific lines of inquiry can influence the line of questioning pursued during a specific interview. The actual line of inquiry can and should evolve throughout the data collection process.

Note that, although the data collection for case studies should be driven by a formal case study protocol, the protocol does not impose any particular sequence of questions, as would a questionnaire. Instead, the protocol specifies the data collection procedures, topics to be investigated, and expected sources of evidence in relation to each topic. During data collection, the case study investigator does not openly administer the protocol as one would administer a survey questionnaire. Rather, the case study investigator maintains the protocol's substantive topics and presumed evidentiary links in her or his mind. In this sense, the substance of the protocol is synonymous with the substance of the mental framework.

Second, keeping the framework "mental," or private, paradoxically helps the case study investigator to present a neutral posture in interviewing persons, sifting through documents, making observations, or otherwise reviewing case study evidence. The trick is not to permit the existence of the mental framework to bias the data collection. On the contrary, the framework, if used properly by a case study investigator, should point to opportunities to search for both contrary and supporting evidence. If there were no framework in mind, such opportunities might be overlooked. Appropriate use of a mental framework therefore supports a fair inquiry and also keeps the investigator alert to seeking relevant data. Publicly sharing the mental framework could also potentially produce much reactivity bias, resembling the situation where a person openly appears to be an advocate for an issue or cause. Confronted by such advocacy, most people either may shy away from communicating or may say what the advocate wants to hear. In this sense, the openness can wrongly influence the availability of various types of data.

At the same time, because the mental framework is held privately, the case study investigator must make sure that interviewees and informants are in no way misled by the case study inquiry. In this sense, the mental framework consists of legitimate hypotheses. They do not represent any ulterior motive or even untoward thinking on the part of the researcher. On the contrary, case study investigators should always adhere to the highest ethical standards and make sure that all field contacts are informed and comfortable about the purposes and setting for the case study.

Third, the mental framework will help a case study investigator to see whether the collected evidence converges or triangulates. Again, the fluidity of the data collection process leaves opportunities for such convergence or triangulation that might be overlooked in the absence of a framework.

All of these topics should be articulated and reviewed during the design of the case study, well before any data collection begins. Case study training and preparation, whether involving single or multiple investigators, should be the occasion for discussing and assimilating the entire purpose of the case study and how potential sources of evidence are to become informative.

Critical Summary

One of the important virtues of case studies is the possibility of discovering new insights during data collection. The use of a mental framework should not inhibit the discovery process. Although the framework comes from the original design of the case study and is later embodied in a formal case study protocol, investigators need also to maintain an "open mind" during the data collection process. Thus, while the mental framework helps to conduct the three functions previously specified, the sharp investigator also should be able to "think outside the box," in this case, outside of the entire mental framework, when unexpected data are revealed. When discovery occurs, the case study investigator needs to pause in the data collection process and rethink the original mental framework. The investigator may alter the plans for the specific and subsequent data collection activities to incorporate the newly discovered findings. One caution is that if the discovery is significant, the rethinking of the mental framework also should lead to the rethinking (or redesign) of the entire case study and its original design. For instance, the main questions of interest may need to be restated and additional supporting (and contrary) evidence sought.

Robert K. Yin

See also Case Study Protocol; Ethics; Triangulation

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METAPHOR

A metaphor is a figure of speech in spoken and written language in which a word or phrase is applied to something to which it is not literally applicable. Metaphors are often featured prominently in natural language uses of individuals within organizations. They help in cognitively compressing a complex event or abstract concept into a comprehensible format, in mediating emotions and affect, and in the rationalizing of behaviors toward others. Identifying and analyzing metaphors in natural language data provides a useful approach to understanding interpretations, emotions, and experiences of individuals within organizations.

Conceptual Overview and Discussion

There is a continuous and growing interest in the study of metaphor within organizational research. This interest reflects the understanding that metaphors are central to human discourse and understanding. Metaphors connect realms of human experience and imagination. They guide our perceptions and interpretations of reality and help us formulate our visions and goals. In doing these things, metaphors facilitate and further our understanding of the world. Similarly, when we attempt to understand organizations (as scholars or as people working within them), we often use metaphors to make organizations compact, intelligible, and understood. As scholars, we use metaphors to theorize about organizations. Gareth Morgan's well-known classification of theories of organization in different root categories of metaphors, for example, assumes to describe and illustrate the variance in (actual and potential) theoretical perspectives in the field. The organization theorist Karl Weick similarly sets out guidelines for how organizational researchers can develop and build theories through the use of metaphors that, when they are projected onto organizational reality (or, rather, observations of organizational reality), may describe and explain aspects of it. In contrast with this projection approach, much research connected to traditions like sensemaking and discourse analysis has followed a more inductive approach in identifying processes of meaning-making around

metaphors that are elicited at the level of people's language use. In this approach, metaphors are seen as devices or units of language that are deployed within particular conversations, sensemaking accounts, and contexts. Metaphors are analyzed for their locally specific uses and meanings. This contextual sensitivity in turn lends itself to making informed interpretations about the specific uses of a particular metaphor in context that may range beyond psychological or cognitive uses (understanding) to sociological uses of, for example, impression management, normative judgments, and legitimacy. Discourse and sensemaking analysts insist that the uses or meanings of a single metaphor may differ across speakers and contexts of language use, and that one therefore needs to consider the locally specific reasons for the choice and appropriation of one metaphor over another and the ways in which metaphors may link together with other parts of the discourse. The discursive view thus sees metaphors not only as available sensemaking devices that are triggered by events, but also as actively employed to manage interests in social interaction.

Application

Two exemplars of the study of metaphors in single case studies are the study by Dennis Gioia, James Thomas, Shawn Clark, and Kumar Chittipeddi on a strategic change within a public university in the United States; and Danna Greenberg's case study of undirected symbolic processes and their impact on the effectiveness of an organizational change. Dennis Gioia and his colleagues published a series of articles on a case study of a strategic change within a large public university in the United States. The case details how the incoming president envisioned the need for change because of significant fiscal and demographic trends. He set up a task force that was charged with designing a strategic planning process that would make the university competitive in the future academic and economic environment. Data were collected through participative observation by one of the authors, who collected field notes (diary and meeting summaries), transcripts of the task force meetings, interviews with members of the task force and other stakeholders, documentation relating to the actions of the task force, and reflective notes on the process. Data were inductively

analyzed by the participant and the outside researchers and built up into coherent theoretical categories and themes. The account of the case is written up into a narrative that details the struggles of members of the task force to come to terms with the strategic change and the sensegiving of the new president. Members discussed the central notion of strategic planning through movement and direction metaphors, and discussed metaphorical representations of strategic planning units as constituent parts or atoms, planning machinery, and centers of excellence. The president also influenced the sensemaking of the group by supplying process or path metaphors of strategic change and by supplying a change model that became adopted by the group and ultimately institutionalized by the university. The president called for a strategic change to enable the university to pursue a path of selective excellence which in turn was meant to make it "a 'Top-10' public university." Dennis Gioia and his colleagues demonstrate how, within contexts of ambiguity and change, sensegiving and sensemaking processes are rich with metaphors and symbols that are central to the construction of meaning and the communication of understanding.

Greenberg's case study followed sensemaking processes around a restructuring. She collected data through participative observation that involved note-taking at meetings she attended and informal conversations she had had with staff about the restructuring. In her role as a part-time, internal human resources consultant, she also met with middle managers and staff consultants who told her about their concerns surrounding the restructuring. Data (documents and notes) were analyzed in an inductive manner, and emerging interpretations were fed back to organizational members. The subsequent case description starts with the decision of a senior vice president of a small consulting firm to divide the firm's consulting department into two semiautonomous groups, each to be run independently. He named the groups the blue and the gray groups because these were the company's corporate colors. After the initial plan was finalized by senior management, middle managers were told about the restructuring and were instructed to tell their subordinates about the change. Staff across the firm was told, and the senior vice president held a department meeting to discuss the new structure. At this meeting, one of the consulting staff sarcastically asked him whether the group names, blue and gray, referred to the two sides in the American Civil War. Though his response was that the colors were the corporate colors, the comment did have an influence on the way in which sensemaking within the groups developed. Contrary to what was intended, both groups and their managers started to compete with one another, and there were visible tensions and conflicts between them. In the absence of explicit directions by senior managers on how the new structure had to be understood, the consulting staff used the metaphor of the Civil War to make sense of the restructuring and to interpret the relationship between the blue and the gray groups. Greenberg demonstrates how a seemingly one-off comment about a restructuring resonates with others and becomes used by these groups as a device for channeling their interpretations and emotions in relation to the new change.

Critical Summary

Studying metaphors provides a window into people's sensemaking and language use. The pervasive nature of metaphors means that they can be usefully studied within case studies. While there is evidence to suggest that metaphors play a crucial role within processes of sensemaking of top managers, strategists, entrepreneurs, middle managers, administrators, and blue-collar workers, they are not always noticed or systematically studied for their role within discourses across such contexts. Because of this lack of awareness or of a systematic focus on metaphor, the existence and role of metaphors is often also insufficiently distinguished from other sensemaking devices, such as the classic tropes of metonymy, synecdoche, and irony and other processes of analogical imagination and symbolic association. The challenge, therefore, is to study metaphors with greater care and to interpret their meaning and use in the context of the discourse or sensemaking of which it is a part.

Joep Cornelissen

See also Constructivism; Discourse Analysis; Sensemaking

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METHOD OF AGREEMENT

A method of agreement is a method of comparing instances of the same phenomenon in different circumstances. By comparing these cases, the researcher can eliminate all context variables that are not necessary for the phenomenon to occur. The variables that the phenomenon has in common in different circumstances are probably the cause of the phenomenon's occurrence.

Conceptual Overview and Discussion

The method of agreement was developed by John Stuart Mill. Mill argues that systematic comparison of social phenomena contributes to the development of empirical generalizations. Next to the method of agreement, he describes the method of difference as an obvious method of comparison. Here, instances of a social phenomenon are compared with instances where this phenomenon does not occur, but that are similar in most other respects. He developed his logic of inquiry with the purpose of applying it in experimental inquiry, but his logic also became applied to comparative case study research. Here it was directed at comparing cases of the same social phenomenon that appears in very different circumstances. This is also called a most different research design, since most (independent) variables differ between these cases.

However, the use of the method of agreement in a multiple-case design is controversial. John Stuart Mill already refers to the fact that the method of

agreement is incapable of identifying a plurality of causes; phenomena that follow from different instances or combinations of instances. Charles Ragin further works out this critique by arguing that most social phenomena have multiple social causations. When using the method of agreement, phenomena caused by either one particular instance or by another particular instance may be falsely judged to have none of these instances as a cause. For example, one social revolution may be caused by land hunger and another by rapid commercialization. By comparing these cases using the method of agreement, both explanatory causes would be falsely rejected on the basis of their absence in the other case. Alexander George and Andrew Bennett later called this issue the problem of equifinality.

The method of agreement therefore runs the risk of falsely eliminating causes of social phenomena. Because of this defect, Ragin pleads for a double application of the method of agreement, namely the *indirect method of difference*. This means the controlled comparison takes two successive steps. Researchers should look for instances of a social phenomenon that have only very few circumstances in common (the method of agreement). After identifying possible causal conditions in this way, researchers should also look for instances where the social phenomenon is absent. Only if the conditions that are supposed to cause the phenomenon are absent in all cases where the phenomenon is absent, can a causal relation can be identified.

A second reason that the method of agreement is controversial is the fact that most social phenomena follow from a combination of causes. Ragin calls this conjunctural social causation. When a phenomenon is caused by a combination of instances, single instances may be falsely judged as having no explanatory force, while in combination they may explain the occurrence of the phenomenon. For example, the work motivation of people may be caused by a combination of nice colleagues and profitable reward. With the method of agreement, profitable reward would be falsely rejected as an explanatory cause when the researcher examines cases where this reward is present but nice colleagues are absent. This problem is also not solved by a double application of the method of agreement. Work motivation would be absent in cases where either nice colleagues or profitable reward is absent.

To solve this problem, Ragin argues for controlled comparison between cases that involve combinations of instances that may explain the occurrence of the social phenomenon. In his book *Fuzzy-Set Social Sciences*, he works this out using the technique of qualitative comparative analysis (QCA). QCA offers a technique for systematically comparing the multiple conditions that precede social phenomena. With the help of cross tables, all patterns of invariance of cases are systematically compared.

Stronger critiques against application of the method of agreement were articulated by Gary King, Robert Keohane, and Sidney Verba. While Ragin warned against a false rejection of causes, they warn against a false confirmation of causal relations using this method. King, Keohane, and Verba argue that selection of cases on the basis of the dependent variable increases the risk that researchers look only for observations that support their hypothesis. Researchers may unconsciously select only cases containing the independent variable that they assume explains the appearance of the dependent variable. Other cases containing other combinations of variables may be "conveniently" left out. King, Keohane, and Verba call this the risk of selection bias. The solution they offer is in line with Ragin's approach, although it is less detailed. To make empirical generalizations, researchers should increase the N of their research. Moreover, they should select cases that vary with regard to the dependent variable. By adding more cases, researchers are able not only to compare cases where the dependent variable is present, but also to compare cases where the dependent variable is absent.

George and Bennett have modified the critique of King, Keohane, and Verba by arguing that these authors reason too strictly according to a quantitative logic of inquiry. Although case studies examine only a few instances of a social phenomenon, many characteristics of this instance are taken into account. So, for increasing the number of observations you don't need to add more cases, you only need to recognize that case studies involve a lot more observations than a single observation in the context of a quantitative research. All observations within a case study are able to falsify hypotheses. If only one or a few characteristics of the case do not fit with the theory, it has to be adapted in a trivial or a more crucial way.

Moreover, case study research examines a period rather than a moment and so allows for tracing back the causes of a social phenomenon. With the method of process tracing, researchers examine the order of events within a case to determine the causes of a change in the dependent variable. The chronological order of events has to fit the theoretical expectations, otherwise the theory has to be adapted or changed.

Application

One application of the method of agreement is Inge Bleijenbergh's research on the development of European social citizenship rights. To examine the causes of this development, she selects two cases where basic European social rights appeared in very different circumstances. She compares the appearance of European rights to care facilities in 1992 (childcare facilities) with the appearance of European rights to time for care in 1997 (parental leave). The political and institutional contexts of these two cases differ fundamentally. In the first case, conservative and Christian democratic parties dominated European policy making, while in the second case social democrats were the hegemonic party. Moreover, in the first case the European Parliament was the institutional actor responsible for social policy development, while in the second case this institutional responsibility had been moved to the European social partners. By comparing these two cases, explanations regarding the dominance of certain political parties or certain institutional actors could be tested and rejected. The development of basic social rights needs to be explained by different causes. On the basis of the comparison, she hypothesizes that European social citizenship rights were developed because European policymakers felt a need to legitimate the European market integration to the citizens and to compensate for its extremes. These hypotheses need to be tested further in cases where the development of citizenship rights is absent.

Critical Summary

The method of agreement is a method for comparing cases of the same phenomenon in very different conditions. It is useful for formulating hypotheses for further research. John Stuart Mill, who developed the method, recognized it was less suitable for explaining social phenomena that are caused by more than one condition. Moreover, the method may falsely reject combinations of causes that explain the occurrence of a social phenomenon. Ways to address this include systematically comparing combinations of conditions. The risk of falsely confirming relations that do not exist may be addressed with the technique of process tracing; that is, examining the particular sequence of events within a case.

Inge Bleijenbergh

See also Case Selection; Method of Difference; Most Different Systems Design; Process Tracing

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METHOD OF DIFFERENCE

The *method of difference* is a method of comparing an instance of a phenomenon with an instance in which this phenomenon does not occur but that has most context variables in common. The single or few variables on which these phenomena differ are considered the cause of the phenomenon. This method is used as a basis for multiple-case designs.

Conceptual Overview and Discussion

The method of difference is based on the logic of inquiry developed by John Stuart Mill. He worked

out the idea that systematic and controlled comparison of social phenomena contributes to the development of empirical generalizations. Next to the method of difference, he described the *method of agreement*, in which instances of the same phenomenon that have different context variables are compared with each other. The few context variables the two instances have in common are considered the reason the phenomenon occurred. Mill developed the method of difference and the method of agreement for the purpose of experimental inquiry, but his logic has also been applied to comparative case study research.

When using Mill's method of difference, researchers compare instances that have the same or comparable circumstances, but differ in the presence or absence of the phenomenon that they want to study. For example, researchers compare a case of the introduction of gender equality measures with a case where such an introduction is absent. In both cases, however, the women's movement put pressure on the government, women were present in the Parliament, and a period of economic boom called for women to enter the labor market. By comparing such cases, the researcher can identify the (small) variation in circumstances that may explain the different outcomes. The single circumstance in which the cases differ is probably the cause of the phenomenon. In this example, it might be identified that the presence of equality machineries, which help to translate social or political pressure into policy measures, may explain the introduction of gender equality measures.

Mill generally considered his method of difference a more valid method for developing empirical generalizations than his method of agreement. The method of difference compares cases of a social phenomenon with cases where this phenomenon is absent, and the variation in the dependent variable prevents the identification of spurious relations between causes and consequences. For example, the method of agreement would have shown that a strong women's movement is present in all cases where gender equality measures are introduced. On the basis of this comparison, the researcher would have falsely concluded that a strong women's movement is a necessary condition for the phenomenon to occur. With the method of difference, it would be shown that a strong women's movement is also present in cases where gender equality change is absent, and so a necessary causal relation would be rejected.

John Stuart Mill identified a second advantage of the method of difference over the method of agreement, namely its ability to cope with plural causation. Plural causation is the principle that several conditions are able to cause a phenomenon independently of each other. Alexander George and Andrew Bennett later called this the issue of equifinality. An example would be that social revolutions can be the effect or result of rapid commercialization or the effect of land hunger. Since only one of these causes has to be present to explain the occurrence of a social revolution, the method of agreement would falsely reject both conditions as a cause of social revolution. The method of agreement would show that land hunger is not a necessary explanation, since social revolutions can be identified where land hunger is not present. Moreover, it would show that rapid commercialization is not a necessary explanation, either, since other social revolutions take place without land hunger. The method of difference would not reject a relationship between land hunger or rapid commercialization and social revolution, since this method would show that social revolutions are absent in cases where either land hunger or rapid commercialization are absent.

Social scientists have spearheaded the use of the principles of the method of difference in two present-day comparative case study methodologies, namely comparing within cases and comparing multiple causes of different cases. George and Bennett argue that process tracing is an excellent technique for comparing within cases. Since case studies in principle examine a period rather than a moment, the technique of process tracing refers to tracing back the causes of a particular social phenomenon in its development. With the technique of process tracing, researchers examine the order of events within a case to determine the causes of a change in the dependent variable. Strictly speaking, comparing between different moments within the same case is an application of the method of difference. The sequence of events within a case shows one or more particular instances that caused the social phenomenon to occur. Since other context variables remain constant, the variable that changed may have caused the event. Process tracing is also a way to cope with the fact that case

study researchers are able to examine only a few units of analysis. By examining and comparing events within cases, the number of observations is extended. In contrast to quantitative methods, the number of observations is not extended by involving more units of analysis, but by extending the number of observations within a unit of analysis.

Charles Ragin uses Mill's method of difference to further develop techniques for coping with the issue of multiple causation. Ragin's basic assumption is that most social phenomena do not have a single cause, but are the effect or result of a particular combination of causal conditions. As Mill argued, with the method of agreement single conditions may be falsely rejected as having no relation to the social phenomenon though they actually do, in combination with other conditions. Ragin shows that combining the principles of the method of agreement with the method of difference would help to address the weaknesses of both methods. He refers to this as the method of indirect difference. Researchers should look for instances of a social phenomenon that have only very few circumstances in common, but also for instances where this social phenomenon is absent. Only if the circumstances that may explain the phenomenon occurrence are absent in all cases where the phenomenon is absent, can a causal relation can be identified.

Application

Theda Skocpol applies the method of indirect difference in her book States and Social Revolutions, where she compares successful social revolutions in France, China, and Russia. She argues that these social revolutions took place in very different time periods and contexts, but nevertheless showed similar causal patterns. To support her argument, she contrasts these cases with other cases that have comparable circumstances but where social revolutions were absent or failed, namely England, Germany, and Japan. So, after identifying the combination of causes that explain the occurrence of social revolutions, she tests whether these causes where absent in places where a social revolution was absent. Here she applied the method of difference, because she selected cases in comparable time periods with comparable circumstances, but where the social phenomenon did not appear.

Skocpol also uses Mill's method of difference by making longitudinal comparisons within one case: The circumstances in a country at a particular moment in history mainly resemble the circumstances at another moment. For example, she refers to the fact that Russia in 1917, when a social revolution took place, resembles Russia in 1905 in most respects. In this earlier period, a social revolution failed. The particular circumstances that changed between these two moments would probably explain the appearance of the social revolution. The double application of the method of difference, by comparing between time periods within cases and by comparing with other cases where social revolutions were absent, makes the comparative historical analysis of Skocpol very convincing.

Critical Summary

The method of difference is a method of comparing cases where a social phenomenon is present with cases where this phenomenon is absent, keeping most circumstances similar. By comparing these cases, researchers are able to identify the single or the few conditions that explain the occurrence of the social phenomenon. The method of difference generally has been considered more valid than the method of agreement, because it is better able to cope with plural causality and because it is more suitable for coping with a combination of causal explanations.

Inge Bleijenbergh

See also Case Selection; Method of Agreement; Multiple-Case Designs; Process Tracing; Within-Case Analysis

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MIDDLE-RANGE THEORY

Social science research during the mid-20th century was characterized by two opposing approaches: On the one hand, functionalist grand theorizing, which was an all-encompassing and wide-ranging system of logically interrelated propositions from which empirical generalizations and working hypothesis on the structures and functions of social phenomena might be deduced. On the other hand, empiricism, which was derived from logical positivism and emphasized the coding and analysis of direct observations, resulting in the proliferation of a disconnected array of empirical studies verifying working hypotheses on delimited aspects of specific social contexts. Middle-range theory was proposed in the 1940s and 1950s by the sociologist Robert K. Merton as a reaction against these two opposing tendencies. Merton's theory claims an intermediary position and requires observation to be theoretically informed and theory to be empirically grounded. In order to bridge the gap between observation and theory, he proposed a "functionalist paradigm for analysis," which stipulated a series of core concepts, procedures, and rules of inference for the study of social behavior.

Conceptual Overview and Discussion

Merton's functionalist paradigm for analysis is a guide for researchers on how to create a middlerange theory. Data collection and analysis can be either quantitative or qualitative, but Merton is mainly concerned with qualitative analysis. He postulates two types of theory: a substantive theory of specific empirical contexts (i.e., deviance), and the formal theory of social structure and processes (i.e., functionalism). The first step in any research involves empirical observations that are then systematized according to a descriptive protocol that has five steps: locate participants within a pattern of structured social relationships; consider the possible alternatives to this observed pattern (i.e., identify what is excluded from the pattern); recognize participants' emotional and cognitive meanings;

distinguish objective behaviors from motivations; and discover obvious behavior patterns that were overlooked by participants. The systematized descriptions were then further systematized by way of the functionalist paradigm for analysis.

Merton's analytic paradigm is relatively more complex than the descriptive protocol. The paradigm specifies the main concepts, procedures, and inferences that researchers are to take into consideration when transforming the organized descriptive data into either formal or middle-range theory. There are 11 of these:

- 1. *Item(s)* to which functions are imputed. This involves conceptualizing social behavior patterns such as social roles, institutional patterns, social processes, cultural patterns, culturally patterned emotion, social norms, group organization, social structure, and devices for social control, among many possible others.
- Concepts of subjective dispositions. These involve conceptually identifying the emotional and cognitive motives and dispositions, as distinct from their objective consequences, that are imputed by participants within a particular social system.
- 3. Concepts of objective consequences. These are the core concepts of functions and dysfunctions. Functions are observed consequences of social items that facilitate the adaptation or adjustment of a given social or cultural system. Dysfunctions hinder system adaptation and adjustment. Nonfunctions are irrelevant to the system. Merton stresses that functions, dysfunctions, and nonfunctions may also be manifest, coinciding with the intended and recognized aims of the system, or latent, which are neither intended nor recognized.
- 4. Concepts of the unit subserved by the function. This involves consideration of how functional consequences affect a range of individuals, groups, and society as a whole.
- Concepts of functional requirements. This
 involves conceptual specification of the
 universal or specific functional requirements
 that satisfy prerequisites for a particular
 system's survival.
- 6. Concepts of the mechanisms through which functions are fulfilled. This involves application

- of concepts that describe concrete social and psychological mechanisms operating to perform a given function, and includes such things as role segmentation, hierarchic ordering of values, social division of labor, rituals, and ceremonial enactments.
- 7. Concepts of functional alternatives. In order to avoid the problem of imputing indispensability to a particular function it is necessary to conceptualize possible alternative, equivalent, or substitutive functions that any item in the system may also fulfill.
- 8. Concepts of structural context. This involves specifying how social items within the entire system are functionally interdependent.
- 9. Concepts of dynamics and change. This involves recognizing functions that do not contribute to system adaptation or maintenance.
- 10. *Problems of validation of functional analysis*. This requires the clear specification of the procedures of analysis and further elaboration through comparative analyses.
- 11. *Problems of the ideological implications of functional analysis*. This requires that the analysts recognize and question their ideological biases.

The purpose of the paradigm is to provide a codification guide and minimal set of organizing concepts to generate a middle-range theory that fits with the assumptions of and can be integrated into the postulates of a formal theory. For Merton, middlerange theory must contribute to formal theory.

Application

Merton applied his theory to an array of social phenomena. These include studies in social and cultural structure (i.e., anomie, bureaucracy, reference group behavior, patterns of social influence, and the self-fulfilling prophecy) and the sociology of knowledge and mass communication. His theory of anomie has perhaps the widest recognition. One widely applied example of it is his explanation of deviance. Deviance is considered to be any behavior where there is a disjunction between socially acceptable goals and means. Merton first observes that all social structures define certain

goals and means as legitimate, and the consequence of this is that all "social structures exert a definite pressure upon certain persons in the society to engage in nonconforming rather than conforming conduct" (p. 132). This functional requisite results in five types of individual adaptations: conformity, innovation, ritualism, retreatism, and rebellion. Innovation involves the individual's acceptance of legitimate goals and through illegitimate means. Ritualism is a rejection of prescribed goals but adherence to acceptable social norms. Retreatism is a denunciation of both socially acceptable goals and their means. Rebellion may involve either an acceptance or a rejection of goals or means. Any of these can be either functional, dysfunctional, manifest, or latent, depending on the particular social system under analysis. For example, stealing is a manifest dysfunction, but stealing to provide food for my children is a latent function; and further, if my stealing results in creating social awareness of the problems of poverty and in the creation of food banks or minimum wage laws, then this manifest dysfunction is a source of social change.

Critical Summary

While most researchers acknowledged the usefulness of Merton's notion of middle-range theory, many discredited its functionalist underpinnings. By the 1960s, due to criticisms from sociologists such as C. Wright Mills and Alvin Gouldner, functionalism fell into disrepute. The primary reasons are that it was considered tautological (i.e., a system exists, there are certain patterns within the system, and therefore these patterns are necessary for the system to survive) and ideologically conservative (i.e., the existing system is functional and interdependent and therefore it is the best that can currently exist). The ideological criticism was effective because Western societies, including the United States, were undergoing broad social change and there consequently arose a need for theories, such as Marxism or feminism, that would be better able to explain these changes. A third line of criticism was that although Merton argued that his theory was sensitive to reformulation based upon insights derived from the data, this was not so because his functional paradigm by definition imposed certain theoretical constraints on empirical observations. This criticism was most effectively made in 1967

by Glaser and Strauss who successfully proposed the generation of grounded theory, which is devoid of any predetermination by preexisting theoretical formalizations. Grounded theory now has a wider following in sociology than middle-range theory, particularly for studies informed by symbolic interactionism and qualitative methodologies. In the 1990s, semiotic, poststructuralist, and postmodernist arguments also proposed abandoning grand theory and the positivism fundamental to empiricism: all data have become theory and all theory is now data. Perhaps for some, Merton's well-formulated and soundly criticized argument is redundant or relevant only as rhetorical grist for analysis. For others conducting qualitative research, his paradigm may provide a useful guide.

Janet M. C. Burns

See also Grounded Theory

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MIXED METHODS IN CASE STUDY RESEARCH

Mixed methods is a research paradigm that combines specific positivistic elements of quantitative research methods with specific constructivist elements of qualitative research methods. Generally, this approach can be sequential or parallel, with the quantitative and qualitative approaches used alternately or together to investigate the same phenomenon.

Conceptual Overview and Discussion

Case study research lends itself particularly well to mixed methods research, as myriad approaches to research design, analysis, and interpretation are possible. Historically, mixed methods research ended the paradigm wars and the "incompatibility wars" because it combined the quantitative and

qualitative research methods. From the 19th century to the 1950s, the purist approach to research utilized one single data source or several data sources within either a quantitative or qualitative research paradigm. This method of research has been labeled monomethod or monostrand due to its limited research approach. From the 1960s to the 1980s, monomethod research designs gave way to multimethod (or multistrand) approaches that ensured any of the four types of triangulation: data, investigator, theory, and methodological. From the 1990s to the present day, mixed model studies have come to the forefront; in these, quantitative or qualitative can be used as the focus of the inquiry, at the data collection stage, and at the data analysis and interpretation stage, or a combination of quantitative and qualitative methods at each of the aforementioned phases of the research study.

Mixed methods research works particularly well for case study research as it allows the researcher to take the rich empirical data yielded from case studies and apply either quantitative or qualitative methods or quantitative and qualitative methods to the data. In this manner, qualitative data can be *quantitized* or quantitative data can be qualitized to extract meaning from the data sets that might otherwise be hidden. For example, a case study researcher might transform interview data on how the roles of teachers have changed with technology infusion into a display comparing who has and who has not changed with a number of technology infusion inhibitors such as infrastructure, monies, and administrative support. A Fisher's exact probability test could be applied to see if there is a statistically significant difference between a teacher infusing technology and an inhibiting factor. Conversely, a quantitative researcher might administer a 50-item questionnaire related to the causes of juvenile delinquency from which the researcher can cluster techniques to form groups on which statistical analysis can be performed. These same data can be analyzed qualitatively to form another data set that will describe separate narrative profiles of a juvenile delinquent. The combination of qualitative and quantitative techniques enhances legitimation as the qualitative analyses involve descriptive precision and the quantitative analyses ensure numerical precision.

Application

Two seminal exemplars of mixed methods research are Jennifer Greene, Valerie Caracelli, and Wendy Graham's 1989 conceptual framework for mixed method evaluation designs, and David Fetterman's 2000 evaluation of the Stanford University Teacher Education Program (STEP).

Greene and her Cornell University colleagues examined 57 empirical mixed methods studies to develop a sound conceptual framework upon which myriad subsequent studies have been based. They surveyed the professional literature for studies conducted between 1980 and 1988 and reduced the initial number to 18 published evaluation studies, 17 evaluation reports, and 22 evaluation papers. Their analysis revealed five different purposes for mixed methods research and seven related design characteristics.

The first purpose was triangulation, which looked to bring together the results from the different methods. For example, a questionnaire that has qualitative and quantitative sections or even two different questionnaires could yield converging data on a related research question. The second purpose was complementarity, where the researcher looked for overlapping as well as different aspects of a phenomenon. For example, a researcher might conduct an interview to arrive at the goals of businesspeople as well as the intention of those people to meet the goals, but also could include a quantitative questionnaire in which the participants rank order their goals in relation to a time line for meeting them. The next purpose was development, where the researcher used one research method to develop another research instrument. For instance, researchers often administer a quantitative survey and then a qualitative interview or focus group based on the survey responses. The fourth purpose was initiation, whereby the research results could be analyzed through a different method to seek some form of paradox or a new lens through which to view the data. The researcher could analyze the results of a semistructured interview using a qualitative method and then reexamine the same data using a quantitative method such as Rasch analysis to ascertain any contradictions in the previous analysis. The final purpose was expansion, whereby the researcher sought to include multiple components in mixed methods research. Traditionally, these studies would use qualitative methods to investigate program processes and quantitative methods to examine program outcomes. Subsequent analysis revealed the seven mixed methods design characteristics to be (1) methods, (2) phenomena, (3) paradigms, (4) status, (5) implementation: independence, (6) implementation: timing, and (7) study. Greene and her colleagues applied thorough analysis techniques to these purposes and ultimately ranked them from most constrained to least constrained: triangulation, complementarity, development, initiation, and expansion. They concluded that some studies can easily mix quantitative and qualitative paradigms (e.g., initiation purpose) while others might have a difficult time if the purpose were triangulation or complementarity.

Beginning in 1997, Fetterman and his colleagues conducted a 3-year study to evaluate the STEP for the purposes of program improvement and overall program assessment. This intensive 12-month education program offers participants a master's degree and a secondary school teaching credential. In the first year, Fetterman and his fellow researchers performed a formative assessment to ascertain areas of strength and of future development. In the second and third years, the evaluation was summative as they assessed the overall program.

Data collection methods included an analysis of institutional documents, faculty interviews, student interviews, observation checklists, surveys, focus groups with present and past students, digital photography of classroom activities, and videoconferencing with the evaluation team. For their data analysis, the researchers concentrated on the following topics: unity of purpose or mission, curriculum, research, alumni contact, professional development schools/university school partnerships, faculty involvement, excellence in teaching, and length of the program. He and his associates met on a weekly basis and conducted numerous database sorts while also ensuring the reports were written and distributed frequently. Their conclusions indicated that there was a disconnect between theory and practice for the students, the STEP lacked a unity of purpose, the students reflected on their practice infrequently, and the teacher education program did not maintain contact with alumni. The authors also listed from two to six recommendations based on their thorough analysis of the Stanford Education Teacher Education Program.

Fetterman and his associates demonstrated how myriad qualitative and quantitative research methods could be utilized, depending on a study's phase, purpose, conclusions, and recommendations. The complex interrelationships of the research methods, the frequent meetings, and the evolving conceptual framework all made this study robust in its findings and recommendations and a clear example of how mixed methods research can be implemented successfully.

Critical Summary

Case study research often examines the descriptive questions of who, what, where, how many, and how much but can neglect the how and why questions often investigated in quantitative studies. Mixed methods research allows opportunities for the meaningful questions to be posed, measured, analyzed, and interpreted. Because both inductive and deductive reasoning are applied in mixed method research, the results are far more robust, especially in case study research that involves rich empirical data gathered through varied data collection techniques. In short, mixed method research is so powerful because it allows the "gaps" in qualitative research methodologies to be filled or overlapped by quantitative methodologies and techniques and vice versa.

Andrew D. Kitchenham

See also Case Study as a Methodological Approach; Paradigm Plurality in Case Study Research; Qualitative Analysis in Case Study; Quantitative Analysis in Case Study; Triangulation

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MODERNITY

Modernity stands for a culture that has embraced critical inquiry as the best way to gain knowledge, affirms the rights of each individual, is democratic in its politics, values hard work as the pathway to success, and radiates optimism about the future.

Conceptual Overview and Discussion

Modernity, a nebulous term that usually refers to the contrast between the new and the old, describes a culture guided by the principle that the new is better. Thus, as Charles Lemert points out, modernity signifies the loss of the familiar, a loss that sometimes occurs through deliberate destruction of the old. Culture, as Peter Berger defines it, is the product of human meanings being externalized or poured out, an outpouring that is both a biological necessity and something that makes humans unique in relation to animal and plant species. It is important to differentiate modernity from modernism and modernization. Modernism denotes the way the new or modern is expressed in art. Modernization refers to social, political, and economic changes engendered by attitudes and programs seeking to promote the modern. Modernity, then, describes a culture that has undergone modernization. Easily the most recognizable characteristic of modernity is its valuing of reason and science over faith and religion. Modernity sees the future as the age in which progress associated with reason, equality, and discipline will culminate in a social utopia. Modernity gave birth to the tools and methods of the social sciences during the latter part of the 19th century. It is within this context that case study research emerged as an effective way to learn about the whys and wherefores of human behavior and belief. Jean Piaget and Sigmund Freud pioneered the use of case studies in their theories about the human psyche (Freud) and the way children learn

(Piaget). Today the method is used extensively in the social sciences, and it continues to be a popular way to conduct research and teaching in various professional fields. This entry begins by describing the dynamics and values associated with modernity. Modernity's relevance to case study research is unfolded in the next section, followed by a look at the contribution of Max Weber to case study research. The last section discusses how the myth of modernity, according to postmodern theory, opens up new possibilities for case study research.

Understanding Modernity

The most important theories of modernity, those of Karl Marx, G. W. F. Hegel, Friedrich Nietzsche, and Max Weber, came into being during the apex of modernity, 1848–1919. Since then and moving well beyond Europe, modernity is now a global phenomenon. Thus, there are many modernities today: the modernity of India, for example, is quite different from that peculiar to Japan since the postwar period. In its classic form, modernity is animated by two central dynamics. The first is critical inquiry that calls tradition into question, as illustrated by Socrates and the Sophists in Greek antiquity. In this regard, Nietzsche traces the roots of modernity's valuation of the self and reason back to Socrates. The second dynamic pertains to social stratification. In modernity, social rank is determined by merit and hard work rather than birth. Thus, instead of receiving a predetermined path for living at birth, one may receive a trampoline. Modern cosmology is understood within scientific points of reference rather than being based on revelatory sources as interpreted by religious institutions. Individuals and their rights take precedence over the community in most Western cultures. Thus, modernity is noted for the value that is assigned to personal property, private law, and human rights. Finally, modernity orients itself toward the future, valuing progress and change over preservation and stability.

The term *value* emerges during the modern period, replacing the ancient idea of the Good. The most notable examples of the Good in the ancient world were Truth, Beauty, and Justice. By contrast, moderns value equality, work, democracy, freedom, life, convenience, and self-interest. Moderns also value self-reflexivity, reason, argumentation (the form of combat that replaces physical warfare

in the ancient world), and a constant questioning of faith and tradition. In modernity, moral principles replace the language of virtue and vice intrinsic to the ancient conception of the Good. Of the ancient virtues, the most important were courage and self-sacrifice. In modernity, by contrast, the moral principle of care for the other stands out from the rest, although this may appear somewhat contradictory given the emphasis on the rights of the individual, self-reflexivity, and self-interest that permeate modernity.

The Relevance of Modernity to Case Study Research

The discovery of the individual as shaping his or her own meaning and worldview through reason, conscience, and freedom is perhaps the most important legacy of modernity to contemporary human beings. And since, according to Sharon Merriam, case study research is particularistic, descriptive, heuristic, and inductive, this modern turn to the individual provides its own raison d'être for basing social theory on individual cases. The basic premise for this research tool is an abiding interest in what it means to be human. One of the hardest kinds of research, case study research, Robert Yin argues, is best suited to those situations that do not lend themselves well to controlled experimentation. Two important sources of information for case study research are systematic interviewing and direct observation.

Case studies are different from experiments in which researchers create and set up the experiment. With the former, the flow of lived reality inspires one's research choices. Within the context of business administration, cases are defined as descriptions of real situations that involve a challenge or an issue that one person or a group of persons must resolve. The case enables the student to imagine him- or herself in that particular situation, making that decision. In sociology, cases may concern an event in an individual's life, an issue confronting a community, or a decision that must be made within a religious institution. Glenda Bissex adds that case studies open researchers to seeing persons as unique beings. The power of the case study, Bissex concludes, is its ability to disprove theories.

Within the context of the social sciences, case study research is utilized by both qualitative and

quantitative researchers. Much of the literature about case study research, however, is devoted to exploring its role in qualitative rather than quantitative research. The philosophical assumptions about reality that undergird qualitative research are clearly indebted to modernity. John Creswell identifies the first one as ontological in which a multiplicity of perspectives concerning human reality mirrors the truth-namely, a many-sided reality. Reality's multiple or plural character contrasts with the idea of one reality, out there, that can be known through faith and/or reason—a view that held sway throughout the medieval and, anticipating our look at postmodernism, into modernity itself. The many perspectives through which situations, persons, and issues are explored in modern universities reflect this ontological premise. Secondly, modernity bequeaths to researchers a high view of experience and takes up an inductive kind of reasoning as the best epistemological path to knowledge in contrast to the priority given to revelation and deductive reasoning that typified premodern European society. Specific research methods premised on experience include experimentation in the hard sciences; field work, participation observation, and interviews in the social sciences.

By no means monolithic, modernity, through its own dynamic of critical inquiry, has engendered a critique of itself that generally can be found under the rubric of postmodernism. Theorists often contrast modernity with premodern or primitive societies on the one hand, and postmodern or contemporary societies on the other, as a means of locating and situating it. Postmodernity includes among its key intellectual inspirations Friedrich Nietzsche, Max Weber, and Michel Foucault. Both Nietzsche and Weber identified as much with theories of modernity as with postmodernity.

Application

Weber's most important contribution to case study research consists of his commitment to *verstehen*—understanding human action on a case-by-case basis through a method that involves figuring out the intentions of the actor(s). For Weber, theories about human behavior must build from the ground of lived human reality up. Thus, he was opposed to "isms" of all kinds insofar as they tended to

erase the individual in their tendency to reduce all problems to one explanation involving a particular slice of social phenomena. Weber carried out his research in accordance with this humanistic principle of verstehen, studying religion for example, not in a generic way but on a case-by-case basis. He pioneered the investigation of Asian traditions, alongside European and Middle Eastern ones; that is now a hallmark of religious studies. In all his work, Weber emphasized the subjective dimension and honored the integrity of the individual. His critical stance toward positivism inherent to the scientific approach being applied to the study of human beings opened up a path for case study research through the tangled web of methodological flux and uncertainty surrounding the still very young social sciences.

While consisting of vast structural changes engendered by bureaucratization, urbanization, and modern capitalism, modernity, according to Weber, retains the past in the form of basic patterns of and motivations for human action. Modernity is not the latest historical flowering, improving on less advanced and weaker social strains that preceded it. In the same vein, he opposed a unicausal approach to understanding history. Thus, he was critical of Marx's class-based analysis of history that ends up explaining the ills of humankind in economic terms. Modernity does, however, manifest characteristics that differentiate it from other historical periods. Above all, modernity is devoted to a rationalism that undermines, without eliminating, faith as a basis for action. Thus, Weber saw Christianity's influence in the West as waning. The rationality of the West takes three forms, in Weber's analysis. There is formal rational thought that is impersonal and bureaucratic in nature; there is practical and calculating thought that is essential to the success of capitalism; and, finally, there is theoretical thought that guides the sciences. Of the four types of meaningful action that Weber identified throughout history, means—end-rational action was the most prevalent in his own modern context. The other three—value-rational, affectual, and traditional retained some weight but for the most part were superseded by the former.

Unlike the proponents of modernity, Weber did not believe that progress was inevitable. He hoped, however, that dynamic and open societies would

become normative in the future. This would entail a multiplicity of values contending with one another in a variety of public venues. Weber believed that people would be more likely to act in ethical ways if they were given opportunities to debate various ethical paradigms freely. Such debate could only deepen and solidify a person's meaning system. He feared that modernity's emphasis on means-end rationality was sidelining those increasingly rare spirits who possessed unified personalities, whose direction came from within. For the open and dynamic societies that Weber believed possible after modernity, a new set of noble values would be required, values that would forcefully challenge the values associated with Western rationality.

Understanding the whys and wherefores of human behavior was Weber's point of departure for advocating, especially in later years, an ethic of responsibility as the foundation for a critical and smart activism in relation to the problems confronting the global family. He rejected the idea that fate determines history, seeing instead the actions of integrated, value-rational persons as the vital soil from which the open and dynamic societies of the future would flourish.

Critical Summary

Weber's emphasis on the motivations that drive social behavior and his attention to the meaning of particular social actors supports case study research. Postmodern analysis of how reason and science become the new authorities, replacing faith and religion, lends further support to Weber's interpretive method (verstehen). By paying attention in an in-depth manner to individual cases, or a small cluster of cases in addition to, or instead of, conducting surveys or questionnaires, the researcher avoids the pitfalls of the totalizing thrust of reason's search for social laws that pertain to all humans in all places and times. Victor Li argues that the communicative reason championed by Jürgen Habermas is based on the idea that the possibility of achieving mutual understanding instead of control presupposes the existence of reason as a universal structure inherent to all persons. Modernity consists of realizing this truth through a vigorous critique of the myths that have legitimized those cultures (primitive or premodern) that modernity has replaced. Thus, the progress that modernity represents is built on the destruction of a way of seeing and being in the world informed by reason's opposite—faith inspired by myth. But as Victor Li concludes, this devaluation of myth inherent to modernity is itself a myth—it is the myth that props up and legitimizes the view of primitive societies as immature, needing Western enlightenment.

Moreover, modernity makes room for difference and multiplicity so long as this "room" is housed in a specific and authoritative set of rules based on a notion of universal reason, as postmodern critics point out. Victor Li, for example, criticizes the rhetoric of inclusivity of the "Other" in Jürgen Habermas's scholarship. While sounding good on the surface, a closer inspection reveals a conditional inclusivity that is premised on an upholding of modern rationality. Thus, if you are a member of a primitive culture in which the supernatural is considered a real force/element of reality, your being included will be under the condition that you agree to the idea that the supernatural is basically passé. The case for case study research emerges precisely at this point as a way to ensure that individuals and groups are listened to on their terms, whether those terms are premodern, modern, or postmodern. Thus, case study research is ideally suited to the search for an inclusivity based on an understanding of what it means to be human and capable of building bridges between the many different persons and groups in our world today.

Annette J. Ahern

See also Ethnomethodology; Experience; Interpretivism; Phenomenology; Postmodernism; Poststructuralism; Theory, Role of; Verstehen

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Modes of Production

Westview Press.

In Marxist theory, a *mode of production* is a social structure that combines and articulates two distinguishable sets of factors: *forces of production* and *relations of production*. The former refer to the tools, technology, labor power, and other specific capacities that are deployed in producing the material wealth required to meet individual and social needs. The latter refer to the social (i.e., people-to-people) relations that frame, mediate, and condition the overall process of production: relations of cooperation and competition; relations of equality and inequality; relations of reciprocity and domination/exploitation; relations of conscious regulation of economic processes; and relations of submission to unconscious market forces.

Conceptual Overview and Discussion

The concept of *mode of production* is fundamental to Karl Marx's historical–materialist account of human social development. Proceeding from the insight that human beings must *produce* their means of material existence through creative and cooperative labor as a precondition for engaging in all other forms of activity, Marx argued that, unlike other species, humanity is able to structure the production of its material needs in remarkably diverse ways. While all socioeconomic formations involve human cooperation and division of labor, the specific forms in which these are

manifested are subject to considerable historical and geographical variation. This variation refutes any presupposition of a fixed "human nature," as well as any notion of "eternal" economic laws. It also constitutes the basis for theoretical differentiations and concrete empirical investigations requiring case study research strategies.

Depending on the level of development of the forces of production available to it, a particular human society (or "social formation") will tend to organize itself on the basis of a specific set of relations of production. These relations of production exert a decisive influence on the production, distribution, and consumption of the total social product, which encompasses both a "necessary product" (the means of subsistence of the direct producers) and a "surplus product" (the material wealth used to support nonproductive elements of the population and to invest in growth). In all class-antagonistic modes of production, virtually the entire social surplus product is appropriated and controlled by a ruling class, which dominates and exploits a class of direct producers. In the third volume of *Capital*, Marx wrote that the relationship of these fundamental social classes is determined by the "specific economic form" in which "surplus labor is pumped out of direct producers." But these economic forms are themselves historically and geographically variable. Hence, while feudal serfs, chattel slaves, and modern wage-laborers are all exploited, the ways in which these direct producers are compelled to perform surplus labor and produce a surplus product are determined by the quite different social relations of production specific to feudal, slave-based, and capitalist modes of production. Furthermore, these social relations of production give rise to diverse political and ideological forms ("superstructures") that "react back" upon the economic structure of society, and are themselves constituted, in part, by such institutions as kinship, law, and the state.

In his 1859 preface to *The Critique of Political Economy*, Marx referred to the Asiatic, ancient, feudal, and capitalist modes of production as "progressive epochs in the economic formation" of human society. In identifying this historical sequence of class-antagonistic modes of production, however, Marx was in no sense asserting that each and every society (or national community) must experience these modes as inevitable "stages"

in its own historical development. Rather, he was ranking them with respect to their capacity to systematically promote the development of the productive forces in general and labor productivity in particular. Thus, the capitalist mode of production is ranked highest because it is the most "revolutionary" in its ability to stimulate labor-saving technological innovation. Even so, capitalism, like all class-antagonistic modes of production preceding it, must undergo an historical-structural crisis resulting from a growing conflict between its forces and relations of production. Capitalist relations of production will be transformed from "forms of development" of the productive forces into "fetters," opening the way for a period of social revolution and the emergence of a higher form of human society: socialism, as a prelude to advanced communism.

Application

The concept of mode of production has stimulated a great variety of case study researches within the Marxist tradition. In ascending from the abstract to the concrete (a procedure that is fundamental to Marx's dialectical method), case studies may be undertaken at many different levels of abstraction. Even the specification of the unique features and dynamics of the capitalist mode of production, as one of several class-antagonistic modes of production, represents a movement from a more general to a more determinate ("concrete") abstraction. Accordingly, Marx's critical analysis of capitalism and of its "economic law of motion," as elaborated in the three volumes of *Capital*, constitutes a case study of a historically specific mode of production.

In some of his other writings, notably the *Grundrisse*, Marx provides rudimentary sketches of a variety of "pre-capitalist" modes, including but not restricted to those mentioned in his preface of 1859. Later Marxists have sought to provide more comprehensive studies of Asiatic, ancient, and feudal modes of production, as well as the transitions between them. Contributors to this literature have included Perry Anderson, Robert Brenner, and Samir Amin.

Marx focused his theoretical and empirical investigations overwhelmingly on capitalism as a mode of production involving *generalized commodity production and exchange*—an economy in

which not only the products of social labor but labor-power (the capacity to work) assumes the "commodity form." In such a mode of production, commodities (defined as reproducible products of labor offered for sale in a market) possess "value" by dint of the fact that they represent a definite amount of socially necessary labor time. The economy-wide division of labor is dominated by the "law of value," which shapes capitalist development in accordance with the principle that labor is the sole source of new value and that value exists as a definite quantitative magnitude at the level of the economy as a whole. Capital is self-expanding value, and its ongoing accumulation therefore depends upon the production of surplus-value through the exploitation of wage labor. The waged worker receives a payment for his or her laborpower equivalent to the value required to reproduce the ability to work, but less than the amount of new value produced through the actual performance of labor. The difference between the magnitude of newly produced value and the value represented in wages is surplus value—the "substance" of capitalist profit. Accordingly, the capitalist mode of production is characterized by a historically unique and contradictory ensemble of production relations that include relations of equality (rooted in the social equalization of commodity-producing labor), relations of competition (between capitalist firms), and relations of exploitation/appropriation (of wage-labor by capital).

As we move from an abstract consideration of what might be called the "pure" capitalist mode of production toward its more concrete manifestations, it becomes necessary to specify the ways in which capitalism may "articulate" itself with other modes of production within specific social formations and to distinguish between the stages of capitalist development. Vladimir Lenin, perhaps Marx's most famous disciple, provided a case study of the latter in Imperialism: The Highest Stage of Capitalism and of the former in The Development of Capitalism in Russia. Lenin belonged to a generation of Marxists who were concerned with understanding how the contradictions, laws of motion, and crisis tendencies of capitalism discussed by Marx were playing themselves out—on a world scale and in particular national contexts—through processes of uneven and unequal development. In The History of the

Russian Revolution, Leon Trotsky went farther by enunciating a "law of uneven and combined development" as a crucial addition to the historical-materialist study of actually existing social formations. According to Trotsky, transitional social formations may combine features of two or more distinct modes of production, resulting in unique and even pathological developmental dynamics, such as those found in colonial and semicolonial countries dominated by capitalist imperialism or in the transitional Soviet society of the 1930s ruled by Stalin's bureaucratic oligarchy.

Critical Summary

Marxist case studies inspired by problems of uneven and combined development have been supplemented over the past half century by a growing body of research pertaining to and comparing variable "social structures of accumulation" within capitalism (e.g., Fordism and Lean Production), national variations in capitalist political economy (neoliberalism, social democracy, etc.) and the forms of capitalist economic crisis. For example, Marx's "law of the tendency of the rate of profit to fall" has been the subject of a large number of empirical case studies purporting to test his proposition that productivity-enhancing but labor-displacing technological innovation must lead to a declining general rate of return on capital investment and that such profitability crises reveal the specific way in which the conflict between the forces and relations of production finds expression under capitalism. Owing to different methods of empirically specifying and measuring the central economic categories of Marx's theoretical system, however, these case studies have produced widely divergent conclusions concerning the soundness of Marx's hypothesis.

Murray E. G. Smith

See also Base and Superstructure; Class Analysis; Dialectical Materialism; Historical Materialism; Means of Production

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MOST DIFFERENT SYSTEMS DESIGN

Most different systems design (MDSD) is a type of theory-driven small-N analysis. This research approach of quasi-experiments compares cases that are maximally different on all but the variable of interest. Derived from John Stuart Mill's system of logic, MDSD can act either as a case selection process or as an analytic method. It is discussed with most similar systems design (MSSD)—that is, the strategy of concomitant variation. Together, these approaches form a core research strategy in comparative politics and a foundation of the Area Studies discipline.

Conceptual Overview and Discussion

Mill's method of agreement powers *most different* systems design. This logic argues that for two cases identically composed except for one characteristic, when one case experiences an effect that the other does not, then the prior circumstance on which they differ must be the cause (or, at least, an integral part of it). As this method can only identify correlation and cannot confirm causal inference, the phenomenon equally may be either cause or effect. In logical terminology, if characteristics A B C D occur together with events w x y z, and if characteristics B C D occur together with events w x y, then A is the cause or the effect or part of the cause of z. This principle combines with Mill's method of difference in application as the joint

method—which is the foundation for conditions of necessity and sufficiency.

MDSD can be either exploratory (as a case selection tool) or confirmatory (when evaluating hypotheses). The method assumes that cases are drawn from the same population, and questions whether the observations and relationships will hold across a large number of varied samples. Whereas a comparative design (such as MSSD) highlights differences wherein all other variation is either controlled or accounted for, a statistical design (such as MDSD) analyzes the few similarities in order to identify what is sufficiently common to produce the event. Generally, the cases feature very different values for multiple independent variables; then, if they take the same value for the dependent variable, the factors that covary must be productive.

Furthermore, MDSD presumes that the level of observation is lower than a system—specifically, the level that most reduces within-group variance—and systemic factors therefore are not special. Unlike MSSD, MDSD does not assume that systems' group characteristics can be eliminated individually; rather, group factors are removed together.

The situation that provides the best context in which to apply MDSD is maximum heterogeneity. First, the researcher identifies a set of variables projected to be related to the phenomenon of interest, as well as variables typically characteristic of members of the set or population. Factors should be included only if they are relevant (in order to avoid overdetermination),

Table I The method of agreement

Case 1	Case 2	Case n
а	d	g
b	e	Overall differences
С	f	i J differences
x	\boldsymbol{x}	x Crucial
y	у	$\frac{x}{y} \begin{cases} \text{Crucial} \\ \text{similarity} \end{cases}$
)

x = Causal variable

y = Phenomenon to be explained

Source: Dr. Andreas Busch, University of Göttingen.

	Possible explanation I	Possible explanation II	Possible explanation III	Possible explanation IV	Event
Case A	Presence of/High X ₁	Presence of/High X_2	Presence of/High X ₃	Presence of/High X ₄	Y
Case B	Absence of/Low X ₁	Absence of/Low X ₂	Absence of/Low X ₃	Presence of/High X ₄	Y

Table 2 Because X_4 is necessary and sufficient, it is the most likely cause of Y; if Case B had not experienced the outcome, then X_4 could have been eliminated as a cause of Y

and must be included if they are related to either the proposed explanation or the outcome. Then, the researcher identifies cases that differ on all factors except one independent variable and the outcome; this procedure amounts to selecting on the dependent variable. Whereas each case scores some value (including extremes) on the continuous scale of each descriptor, MDSD does not employ exact matching in an attempt to introduce control variables; instead, it aims to eliminate irrelevant systemic factors in favor of sufficient explanatory individual factors. In this way, any extraneous sources of variance that persist across the range of circumstances must be generic. Second, the investigation begins with a hypothesis of no difference: through examining heterogeneous samples, the remaining similarity must be significant. Third, the researcher uses iterative comparison procedures (e.g., process tracing) in order to eliminate necessary causes—leaving only sufficient conditions. Fourth, analysis ends when it is no longer possible to draw general conclusions valid for all the subpopulations; this is analogous to the saturation point that terminates interview data collection. Finally, the researcher reports that among cases that differ on (the specified characteristics), similarities regarding (the event) can be attributed to the following (factor of interest).

Application

Given that MDSD functions in both experimental design and data analysis, the strategy can be applied in many social science disciplines. The primary example employed in order to demonstrate

MDSD is Theda Skocpol's sociohistorical investigation of social and political revolutions. Skocpol selected three cases—France, Russia, and China—ranging across 150 years. The subject societies varied on social characteristics such as international pressures and class relations enough to isolate what was common and, thus, causal.

Through applying elimination logic, MDSD also can support more traditional, direct comparisons. A constitutional legal scholar like Ran Hirschl could examine the impact of judicial review on civil liberties through exemplars of the Netherlands (a newcomer to juridicopolitical balance) against either the United States or the United Kingdom (which both enjoy traditions of judicial review). Alternatively, he could assess the influence of colonial legislation on contemporary constitutional law through the lenses of Suriname and Indonesia two nations that share nothing but former membership in the Dutch empire. Across examples, MDSD structures comparisons such that differences are so prevalent as to become explanatorily irrelevant—and common factors explanatory.

Critical Summary

Although MDSD encourages the search for a single sufficient circumstance or explanatory context, its focus on within-group variance at the expense of aggregating between-group variance curtails its power to draw causal conclusions. Instead, MDSD is more applicable to theory building and to the elimination of potential causes than to either theory confirmation or

causal evidencing. This is the primary limitation weakening MDSD. If an MSSD discovered sufficient difference, the number of factors to which the event could be attributable would be low enough that they would become explanatory. However, if an MDSD identified sufficient common characteristics, the large number of factors that differ would limit the generalizability of the conclusions.

As a nomothetic, reductionist strategy, MDSD permits comparisons of significantly distinct elements within a common category; that is, apples and oranges may be compared at the taxonomic level that encompasses fruit. However, idiographic theorists criticize MDSD for collapsing across dimensions of complexity and uniqueness at the expense of the whole—in other words, for ignoring the forest for the sake of the trees. Moreover, inclusion of so many independent variables either complicates or prohibits both discerning interaction effects and measuring multiple correlations. Therefore, MDSD best serves as complement to MSSD and other comparative case study approaches.

Sarah M. G. Otner

See also Case Selection; Comparative Case Study; Inductivism; Qualitative Comparative Analysis

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MULTICOLLINEARITY

Suppose we have a single dependent variable y and k independent variables. Further let y = $f(x_1, x_2, \dots, x_k)$ denote the functional relationship between (x_1, x_2, \dots, x_k) and y. Note that we are in a different situation than the one dependent variable and one independent or predictor variable case. When the predictor variables or x's, (x_1, x_2, \dots, x_k) are highly correlated we say multicollinearity exists. When the correlation among the variables is very high (say .9 or more), problems may arise with the model estimates, their interpretation, and the significance level of tests. Other consequences of multicollinearity are large standard errors that give rise to wide confidence intervals and nonsignificant or incorrect t statistics.

Application

We assume hereafter that the relationship between the dependent variable y and the independent variables x_1, \ldots, x_k (perhaps re-expressions of the original independent variables) is of the form, ignoring for the moment the possibility of variation,

$$y = f(x_1, ..., x_k)$$

$$= \beta_1 x_1 + \beta_2 x_2 + ... + \beta_k x_k$$

$$= X' 1 x_k \beta_k x_1$$

$$= X' \beta.$$

In the statistical context, that is, when a particular value for (x_1, \ldots, x_k) specifies a frequency distribution for y, we *assume* that the average value of y is given by

$$E[y|x_1,...,x_L] = \beta_1 x_1 + ... + \beta_L x_L$$

and that changes in $(x_1, ..., x_k)$ affect at most the *means* of the frequency distributions. Read $E[y|x_1, ..., x_k]$ as the average value of y given $x_1, ..., x_k$. If we put $e = y - \beta_1 x - ... - \beta_k x_k$ then the frequency distribution of e is constant as (x_1, \ldots, x_k) changes.

Thus we can write our model as

$$y = \beta_1 x_1 + \ldots + \beta_k x_k + e$$

and *e* is referred to as the error term.

If f is the frequency of e, then for a particular value of (x_1, \ldots, x_k) the frequency function of y is given by $f(e - \beta_1 x_1 - \ldots - \beta_k x_k)$. We will assume hereafter that f can be taken to be a density function and that the variance of the frequency distribution for e exists and is equal to $\sigma 2$.

In a psychological investigation, our primary purpose will be to make inferences about the true value of the coefficients $\beta_1, \beta_2, \ldots, \beta_k$.

To do this we will be required to make a number of observations at different values of (x_1, \ldots, x_k) .

Let y_i denote the observation taken at

$$X'_{(i)} = (x_{i1}, \ldots, x_{ik})$$

and let e_i denote the error. Then for n observations we have in matrix notation

$$ynx1 = \begin{bmatrix} y_1 \\ y_2 \\ \vdots \\ y_n \end{bmatrix} = \begin{bmatrix} \beta_1 x_{11} + \dots + \beta_k x_{1k} + e_1 \\ \beta_1 x_{21} + \dots + \beta_k x_{2k} + e_2 \\ \vdots & \ddots & \vdots \\ \vdots & \ddots & \vdots \\ \vdots & \ddots & \vdots \\ \beta_1 x_{n1} + \dots + \beta_k x_{nk} + e_n \end{bmatrix}$$

$$= \begin{bmatrix} x_{11} & \dots & x_{1k} \\ x_{21} & \dots & x_{2k} \\ \vdots & \vdots & \vdots \\ x_{n1} & \dots & x_{nk} \end{bmatrix} \begin{bmatrix} \beta_1 \\ \beta_2 \\ \vdots \\ \beta_k \end{bmatrix} + \begin{bmatrix} e_1 \\ e_2 \\ \vdots \\ \vdots \\ e_n \end{bmatrix}$$

$$= X_n x_k \beta_k x_1 + e_n x_1$$

$$= X \beta + e$$

where *X* is called the *design matrix*.

We assume that the form of the frequency distribution for *e* is normal: that is:

$$f(e) = (s\pi\sigma^2)^{-\frac{1}{2}}e^{\left(-\frac{1}{2\sigma^2}e^2\right)}$$

or $e \sim N(0, \sigma^2)$.

The statistical model we have constructed here is

$$(R, (2\pi\sigma^2)^{-\frac{1}{2}}e^{\left(-\frac{1}{2\sigma^2}(y_i - \beta_1 x_1 - \dots - \beta_k x_k)^2\right)}\beta_k \in R, \sigma \in R^+)$$

called the linear model with normal error.

For the normal linear model the least squares estimator of β is given by

$$b = (X'X)^{-1} - 1X'\gamma$$
.

The vector of residuals is

$$Y - Xb = e$$
.

When the predictor variables or x's $(x_1, x_2, ..., x_k)$ are correlated, we say *multicollinearity* exists. Where correlations are high among the x variables then the computer has difficulty in calculating (i.e., rounding error, etc.) the matrix $(X'X)^{-1}$, which is necessary for many estimates (i.e., b's, standard errors, etc.). The psychologist might find for example the F test of H_0 : $\beta_2 = \beta_3 = ... = \beta_k = 0$ in the overall ANOVA table is significant; however, the t tests are not significant. The problem here is that the variables share information concerning the dependent y.

One possible solution to this problem is to drop one or more of the correlated variables from the model. This could be accomplished on the basis of the correlations of the *x*'s. This may work; however, many times the problem is with a linear combination of variables, and a bivariate correlation will not indicate a problem (high correlation).

Problems When Correlations Are High

- 1. Rounding errors in the calculation of the B estimates, standard errors (this is a consequence of the calculation of $(X'X)^{-1}$ in the model with multicollinearity).
- 2. Results misleading—for example, for the model

$$E(x|y) = \beta_1 + \beta_2 x_1 + \beta_3 x_2.$$

Both t statistics for the betas 2 and 3 are nonsignificant; however, F test for the overall model ANOVA model is significant (indicating the x variables share information).

Table I Example of SPSS

Coefficients^a

		Unstandardized Coefficients:		Standardized Coefficients:			Collinearity Statistics:	
Model:		В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	-36.657	68.621		534	.603		
	Age	.561	1.381	.481	.406	.692	.006	159.967
	Amount of TV news watched (hrs./wk.)	9.900	20.813	.770	.476	.643	.003	299.238
	Previous victim of crime	32.402	28.496	1.025	1.137	.278	.011	92.740
	Age squared	9.361E-03	.045	.788	.207	.840	.001	1654.744
	Interaction of age and TV news	-9.01E-02	.615	813	146	.886	.000	3513.813
	Interaction of age and victimization	993	1.914	-1.266	519	.613	.001	678.945
	Interaction of age, TV news, and victimization	1.956E-02	.191	.173	.103	.920	.003	322.604

Note: a. Independent variable: Serious.

3. Can effect direction or sign of coefficients β .

Expect significance in the problem under study to be in a particular direction but contrary to expectation, one b estimate positive (.8) and one negative (-.7).

Detection of Multicollinearity

- 1. Calculation the correlation (*r*) between pairs of variables and examine large values of *r*.
- 2. Opposite signs than expected for *b*'s estimates.
- 3. Significant *F* test in the overall ANOVA test of the model but nonsignificant *t* tests of the individual parameters.
- 4. Calculate *variance inflation factors* for *b*'s.

The t test is nonsignificant because the standard errors (s_b^2) are inflated as a consequence of multicollinearity.

We see that the standard error can be written as

$$s_b^2 = s^2 \left(\frac{1}{(1 - R_i^2)} \right)$$

where s^2 estimates O^{-2} and R_i^2 is R squared for the model that regresses X_i on the remaining $(x_1, x_2, ..., x_{i-1}, x_{i+1}, x_k)$. In other words, instead of y, you are now trying to predict an x from the other x's in the model.

Note:

$$\frac{1}{(1-R_i^2)}$$

is called the *variance inflation factor VIF* for parameter B_i .

 VIF_i becomes large when R_i^2 is large because x_1 is strongly correlated to the other independent variables.

In practice: Problem exists if VIF is greater than 10 or R_i^2 greater than .9 is a common guide.

Some software calculates tolerance:

$$Tol_{i} = \frac{1}{VIF_{i}} = 1 - R_{i}^{2}.$$

It is the reciprocal of *VIF*. Use a *Tol* value less than .1 as a cut-off.

In SPSS, click collinearity diagnostics for these statistics. An example of SPSS is given above; note the VIF and TOL columns and their very high and low values, respectively, indicating problems with multicollinearity.

Critical Summary

When the predictor variables or x's, $(x_1, x_2..., x_k)$ are highly correlated, we say *multicollinearity* exists. When the correlation among the variables is very high (say .9 or more), problems may arise

with the model estimates and their interpretation. Another consequence of multicollinearity is large standard errors that give rise to wide confidence intervals and nonsignificant or incorrect *t* tests of the parameters of interest.

A Possible Solution to Multicollinearity

- Drop correlated variables (one or more) using stepwise variable selection (a type of linear model variable selection procedure available on most statistical software) as an aid in variable selection.
- 2. Avoid multicollinearity by designing an experiment where the levels of *x* are uncorrelated. However, given the time + cost for experiments, many researchers continue to use observational techniques for data gathering.
- 3. Check your data for common errors such as including the same variable twice, including an index variable in the model that is composed of the variables already in the model, and errors in the coding of polynomials or dummy variables.
- 4. Always make use of previous research and your knowledge of the system under study. For example, this information should be helpful in determining what variables to include, how to create indices, guides on sample sizes, and more.

Robert Gebotys

See also Factor Analysis; Number of Cases; Quantitative Analysis in Case Study; Sampling; Statistical Analysis

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MULTIDIMENSIONAL SCALING

Multidimensional scaling (MDS) is a method for mathematically modeling a participant's cognitive "map," or geometric psychological representation, of a set of objects. These "objects" can be anything—category exemplars such as birds or plants, favorite restaurants, consumer products. Because people vary in how they organize their ideas and concepts in their minds, this modeling technique is appropriate for studying a single case.

Conceptual Overview and Discussion

The researcher starts with a set of objects or stimuli that he or she is interested in scaling, such as a set of cars. The research questions of interest are about the underlying dimensions that describe this set of objects and how the objects themselves are organized relative to each other. The research participant is presented with pairs of these stimuli and asked for his or her ratings, typically in terms of the objects' similarity (or dissimilarity), although the ratings can be on other continua as well. All pairs are presented, and care should be taken in presenting each pair in both orders, AB and BA if possible, because it has been found that people's ratings sometimes differ depending on how the stimuli are presented.

The raw data for the analysis, then, is a potentially nonsymmetric matrix of all pair-wise ratings of similarity (or dissimilarity/distance/disparity) between the objects in the set. The data matrix is analyzed with MDS software such as the one available in SPSS or specialized programs available from several Web sites. (A useful feature of the SPSS program is that it provides an option of using correlation coefficients computed from multivariate data as the input matrix, with the correlations being interpreted as similarities.) The MDS analysis provides the researcher with a geometric model of the objects' representation with two key features: (1) the number of dimensions that are required to describe the set of objects under study, and (2) the placements, in the form of geometric coordinates, of these objects in this space. In the classic approach, the coordinates of the objects, x_1, x_2, \ldots, x_m , where m is the number of dimensions, are estimated from the similarities, s_{ij} , from the model equation

$$s_{ij} = \left(\sum_{k=1}^{m} |X_{ik} - X_{jk}|^r\right)^{1/r}.$$

The researcher makes two key decisions for fitting the model to the data. One is about the

number of dimensions, m, and the second is the type of metric to be used, represented by r in the model equation above. (A metric is a mathematical function with specific properties that assigns numbers to distances; several different types of metrics have been proposed, and in MDS two typical metrics come from what is called the Minkowski family of metrics.) Any positive value of r is possible, but two of the most commonly used and most easily interpretable metrics are the "city-block" (where r = 1) and Euclidean (r = 2). The city-block metric measures the distance by simply adding the distances the two objects are apart along each dimension, in a grid-like fashion as one would walk in a city. The Euclidean metric measures the distance "as the crow flies."

Typically, data analysis proceeds by fitting several different models to the data, with different values of m selected, and retaining and interpreting the best-fitting model. How the best-fitting model is chosen is based on standard model-fitting techniques that compare observed data with modelpredicted values. These fit-statistics come standard in all computer packages, and in MDS they are referred to as "stress" measures. The lower the stress value, the better the model fits the data. A caution here is that the stress always decreases as the number of dimensions is increased, but this comes at the price of needing to estimate an additional parameter for each object in the set for each additional dimension, leading to a rapid increase in the number of model parameters that must be estimated. So a compromise must be reached between the number of dimensions and the fit in terms of the stress. A "scree plot" that graphs the stress against the number of dimensions can be a useful tool here because it levels off, indicating the point where the improvement in model fit due to the additional dimension becomes relatively negligible. This point on the scree plot then suggests the number of dimensions that should be selected.

In the resulting fitted model, the relative placements of the objects in the m-dimensional geometric space (usually m=2 or 3) represent the participant's mental organization of those objects, with objects near each other being more similar. The researcher interprets each resulting dimension based on the characteristics of the objects as they are ordered along that particular dimension. For example, if the objects seem to be ordered from

smallest to largest (or largest to smallest—the direction is arbitrary) on one dimension, the dimension would be one of size. How the objects cluster is also informative as this provides the researcher with information about how similar or dissimilar the participant views the individual objects relative to each other. One caution here is that the mental representation obtained is valid only for the objects in the set that was tested. If the set of objects were to be augmented or even if a few objects were simply substituted, for example, the relative similarities of the objects and the dimensions themselves might change.

Application and Extension

Knowing how a person represents or "maps" several objects in his or her mind can be useful and interesting in a number of research and applied settings. In cognitive psychology, for example, researchers have studied semantic networks of various categories of objects for decades. In one early application of MDS, for example, Mary Henley in 1969 studied the representations of 30 different animals. She found that three dimensions nicely represented the animals she chose for the set: size, ferocity, and physical similarity to humans (primates vs. others).

The classic MDS approach was extended in 1970 by J. Douglas Carroll and Jih-Jie Chang to study how individuals differ in terms of their psychological representations. This expanded MDS procedure assumes that individuals have the same underlying dimensions representing the objects but they differ in how important they consider each dimension. The differential weighting of the dimensions is represented by w_b in the model equation

$$s_{ij} = \left(\sum_{k=1}^{m} w_k |x_{ik} - x_{jk}|^r\right)^{1/r}$$

Carroll and Chang demonstrated their technique with perception of auditory stimuli and perception of nations. This model with the weighted dimensions also has an interesting application in studies of how a different context may affect the same person's representation. The computer program that fits this model is called INDSCAL (for INdividual Differences SCALing) and is also available within SPSS (and on several Web sites).

Other applications have appeared in clinical settings and for marketing purposes. For example, MDS has been used to study taste perception, pain perception in cancer patients, even chromosome mapping. It has found interesting applications in assessing main factors leading driving accidents, assigning students to groups based on their schedules, and cognitive mapping of semantic networks of all kinds of semantic categories (e.g., musical instruments, vegetables, automobiles). Even more generalized applications are possible, for example, mapping a communications network among a group of people using a data matrix containing the number of "transmissions" between pairs of people, or representing the structure of a business network based on the number of business transactions within a set of companies.

Critical Summary

MDS is a useful technique for modeling an individual's similarity ratings of a set of objects. Fitting a geometric model to the set of objects provides rich insights into how the objects are organized and represented by the individual. The data are easy to obtain and the modeling techniques are straightforward to use. Furthermore, applications of the MDS technique can extend into any area where the input data are a matrix of pair-wise ratings or rankings or even frequency counts among a set of objects.

Helena Kadlec

See also Analysis of Visual Data; Cognitive Mapping; Factor Analysis

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MULTIMEDIA CASE STUDIES

Multimedia case studies (MCS) integrate audiovisual and textual representations in hypermedia formats. These representations are informed by theory, quantitative and qualitative methods, and research results.

Hypermedia formats depend on technologymediated interactions between users and media that stimulate nonlinear thinking. Advances in digital and information technologies as well as in multimedia qualitative research have generated an increase in the production of multimedia case studies during the past decade.

Conceptual Overview and Discussion

Multimedia case studies can follow the conceptual design and style of the research or teaching case study and can achieve the same educational goals as these. As described by William Naumes and Margaret Naumes, a research case study differs from a teaching case. While the first includes the analysis, theoretical framework, and information in the essay, the second locates the theoretical framework and part of the analysis in the Instructor's Manual that accompanies the case study.

MCS can incorporate elements from traditional (nonmultimedia) case studies such as graphs, texts, diagrams, financial statements, annual reports, business or social history, and interview transcripts. But they also need to integrate these elements with audiovisual ones such as videos detailing the operations and technology of enterprises, social organization, or life stories; videos of interviews; photographs; audios; animations; and/or diverse narrative forms. The product obtained through filming might be closer to products of visual ethnography, viewer created content, and video art, for the importance lies in recording the experiences and not in generating a film-industry-like object.

These studies employ and deploy digital technologies to carry out research combining qualitative and quantitative methods. The results of multimedia case studies are usually expressed in a

hypermedia format that integrates hypertext with audiovisual elements. Elements are constituted as nodes that are then linked in the design of the MCS's structure and information architecture. It is the design of this structure and information architecture that is vital in stimulating nonlinear thinking. For publication, the hypermedia MCS can be burned in a CD-ROM/DVD medium or uploaded to the World Wide Web, either within a Web site or as an HTML/PDF document.

At the end of the 20th century, there were few multimedia case studies on the market, few bibliographic references to the topic, and no theoretical framework in which to locate the development of these cases. The demand for MCS was still immature; the costs for developing such cases were high in terms of time and financial resources needed; and an analysis of the literature on teaching and information technologies that would contribute a theoretical framework in which to locate MCS had not been developed.

Pioneering efforts in the creation of the "multimedia" are linked historically to the HyperCard software developed by Apple in the late 1980s, although the origin of the term *multimedia* is linked to artistic performances that combined different mediums utilizing a projected image, music, and visual images as early as the 1960s.

MCS have emerged with force in the past decade, fueled by the availability/accessibility of digital and information technologies and by the advances of multimedia qualitative research. Data analysis has been transformed, and the traditional parameters of field studies, the methods for obtaining and registering "data" and "information" have been redefined partly by the analysis of visual "data"; the ways of analyzing multimodal communication; and the ways in which findings are presented and represented.

MCS provide real-world images, processes, and voices that enrich traditional studies. Also, they can incorporate the direct real participation of the subject researched, interviewees, enterprises, and social organizations. Images, sound, and video bring to life the unfolding of the case with its multivocal components and its rich cultural expression. Digital multimedia technologies add value to MCS because they provide a medium through which to express, in visual terms, transdisciplinary scholarship and nonlinear thinking on the social and natural sciences as well as in the humanities.

The technological underpinnings of MCS development include those related to software and hardware applications necessary to create the materials to be included in the MCS. The process of creating the materials varies in terms of the software applications these require. The generation of audiovisual materials—video-clips, photographs, photomontages, and scholarly text-all require different work processes and software applications. Requirements include computers, external hard drive, video camcorders, digital cameras, and video decks to digitize mini-DVDs. Diverse software might include applications to create and manipulate images, sound, and video (such as Adobe Photoshop, In Design, Final Cut Pro Studio, Flash, and Office), and to create simulations based on applications of MCS. Compliance with ethical requirements and standards must also be met when filming and photographing people and institutions.

The creation of scholarly multimedia electronic publications is one of the most pressing challenges MCS production confronts within the digital innovation domain. The representation and organization of findings presents challenges as long as the software required to integrate hypertext and multimedia without technical problems is still not generally available. For instance, the software that allows one to analyze field data is only beginning to provide for the management and integration of video. There is other software that manages video but does not allow researchers to easily create hypertexts with links to the videos. The World Wide Web offers alternatives to a complete hypermedia system, but video streaming still presents limitations and challenges.

Application

Applications of MCS are used in diverse disciplines such as mathematics, engineering, journalism, science, business, and education. These can also utilize the concept of the MCS in simulations and or distance/virtual education.

The incorporation/utilization of multimedia case studies products in business is novel in business schools worldwide. The pioneer in the development of MCS has been the European Institute for Business Administration, known as INSEAD, in France, which already had generated this type of

product in the 1970s. At present it has over a dozen MCS and simulations. Harvard University in the United States and the Central American Institute of Business Administration in Costa Rica, known as INCAE, have also been incorporating this genre, as digital technology is integrated into teaching and research processes. Harvard produced its first MCS in 1997 and at present has more than 10 cases. The INCAE in Costa Rica has only a couple of MCS.

In 2007, the University of Puerto Rico launched a Pilot Project where MBA research projects/theses were developed as MCS. Students were trained by a team of professors to develop a MCS. Students filmed business alternatives and in conjunction with the professors designed and developed the elements (nodes) to be included in the case.

The ZARA multimedia case study generated by Harvard includes traditional textual materials, a video of the enterprise's operations, a video of the managerial team holding a roundtable discussion, and videos of the inauguration of ZARA stores. Users can explore contents through links. This case is different from others developed by Harvard that limit audiovisual content to a video of a "talking head" interview.

The Journalism School at Columbia University has published a collection of MCS in journalism that combine teaching cases with online videos of the real situations confronted by news organizations. One such instance is the case of journalists covering developments at an abortion clinic. Other cases in humanitarian crises were developed in partnership with the School of Public Health at Columbia University.

In math education, the Math for All Project at the Bank Street College of Education in New York City has generated MCS of teaching events involving students with disabilities in mathematics, based on videos documenting the experiences of focal students, math lessons and plans, and conversations with the teachers.

Applications utilizing MCS can be developed in instances that link information technologies with distance/virtual education, and/or that include a simulation component. Some experiences in distance education incorporate MCS and develop a live discussion around it that takes place at virtual classrooms in which students interact with other people integrated in diverse

social organizations. Business students interact with managers from different enterprises. Other experiences in simulation engage engineering students that utilize real or simulated videos of civil engineering construction processes to illustrate pedagogic concepts. Simulations through which they can apprehend the complexities of product development have been developed.

Critical Summary

Multimedia case studies can offer everything that the traditional teaching and research cases offer and more. They bring to life the real situation/case studied. They allow for applications that go beyond those of the traditional cases. In the future, MCS will certainly continue to prove innovative in the research and teaching environments.

Maribel Aponte

See also Case Study Research in Anthropology; Ethnomethodology; Visual Research Methods

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Multimethod Research Program

Multimethod research programs are based on a methodological research strategy that includes more than one method of collecting data and or more than one method of analyzing the data. Such methods can be based on qualitative techniques, quantitative techniques, or a mix of both. In keeping with this encyclopedia's theme of case study research, the focus of this entry is on multimethodological approaches that include case study as one of the research methods used to gather data related to a particular event, phenomenon, and/or organization.

Conceptual Overview and Discussion

Controversy exists as to the conditions under which multiple methods should be combined. Some research refers to the incommensurability of research paradigms to advocate the use of methods compatible with the one philosophical standpoint taken. According to Thomas Kuhn, the term paradigm refers to the system of beliefs, values, and techniques shared by a community of researchers. It represents the model of inquiry adopted to acquire knowledge. An identifiable feature of a research paradigm is the consistency between the techniques and methods used with the system of beliefs and values. In fact, three different levels of the use of the term paradigm can be distinguished: the philosophical level, which reflects basic beliefs about the world; the social level, which provides guidelines about how the researcher should undertake the project; and the technical and methodological level, which involves the methods and techniques adopted in conducting the research. For the purposes of this section we will focus only on the level of methods and techniques where the most common distinction is between qualitative and quantitative methods. However, it has to be noted that generally the problem investigated and the philosophical position affect the way of approaching the data at the levels of both collection and analysis. To clarify, the methodological distinction between qualitative and quantitative data is generally consistent with the philosophical distinction between phenomenology (based on interpretation of multiple realities) and positivism (based on the belief that an objective reality exists and can be recorded). The distinction between qualitative and quantitative data is also usually consistent with the distinction between idiographic (inquiry from inside—the researcher is part of the

phenomenon observed in depth) and nomothetic research (inquiry from outside—the researcher's role is that of recording events and generalizing).

Although a distinct dichotomy exists between the philosophical, social, and methodological positions listed above, the reality of research often determines compromises between the perspectives. While difficulties may be encountered when mixing methods, it may be valuable to the investigation of the research problem to maximize the amount of information obtained about a particular phenomenon with the use of different lines of evidence from various methods. The main difficulty associated with multimethod research is that different methods that address different aspects of a problem may yield divergent answers. These conflicts are often seen as invalidating each other rather than offering insight into different aspects of the issue investigated. The use of multimethod research is less problematic if such methods adopt the same underlying philosophical position. By doing so, some of the difficulties would be minimized and the methodological strategy would expand and deepen the knowledge of the area investigated.

The case study method is itself multimethod in nature. In fact, a feature of case study research is the use of multiple and complex data sources that may include qualitative (e.g., interviews, observations, focus groups, documentation) and quantitative (e.g., surveys, statistical data) records. It can also be argued that the aim of case study research is to achieve a wide, in-depth assessment of a context and its participants. Generally, both qualitative and quantitative methods are used in the case study within one underlying ideology and epistemology that privileges depth and interpretation over generalization and objectivity.

When the case study is associated with other research methods in a multimethod program, the ideal is to choose methods that compensate for the limitations of the case study. Methodological triangulation would enrich the knowledge produced and diminish the weaknesses of the case study by overcoming its limited representativeness and its restricted possibilities of generalization. For example, when a case study includes only secondary data (e.g., documentation, archival records, physical artifacts), the additional use of methods that focus directly on the research questions (e.g., surveys, interviews, focus groups), although used in a

wider context, would provide greater legitimacy to the case study data.

A multimethod research program, which provides multiple sources of information, generates comprehensive and rich knowledge. A multimethod research program including a case study could be designed to provide explanatory (focusing on cause-effect relationships), exploratory (providing an evaluation as a precursor to future or alternative investigations), and descriptive data (providing a description). A quantitative summarization and abstract reduction of a phenomenon (e.g., statistical records) could be enriched and contextualized by the integration of an in-depth qualitative study of a specific case. For example, the use of statistical data based on a specific employment sector could be associated with the in-depth analysis of a case company within the sector. Such research design and strategy counterbalances the strengths and weaknesses of statistical records with those of the in-depth case study. The use of multiple but independent methods is an imaginative way to maximize the amount of data collected and provide greater levels of generalization than is provided by the case study alone.

Application

All research methods expose certain aspects of the problem investigated by ignoring others. In choosing a multimethod research strategy, the researcher may opt for *complementarities* or for *integration* of approaches. In the first instance, different approaches (one of which is the case study) are used to investigate different research problems or different aspects of a research problem. Conversely, the integration of research methods sees the combination of methods as a way of examining the same phenomenon and enriching the findings.

An exemplar of integration of multiple methods within a research program is Pär J. Ågerfalk and Brian Fitzgerald's study of psychological contract obligations in opensourcing (where commercial companies and open source communities collaborate on the development of products). Considering the novelty of the opensourcing concept and to achieve some understanding of the phenomenon, Ågerfalk and Fitzgerald analyzed three case studies as part of the first stage of their research. Such cases were deemed "revelatory" and aimed at providing

rich insight into the opensourcing phenomenon. Methods used to gather data in all three cases included interviews, workshops, and document analysis, such as Web portals, mailing lists, and project development pages. Qualitative data gathered was then analyzed using coding techniques combined with an open-ended cross-analysis. The findings focused on the obligations for which the customer on the one hand, and the open source community on the other, must bear responsibility. Customer obligations were: achieving consensus on the development; project ownership; marketing of the project to achieve visibility; creating a sustainable ecosystem; transparency; and project monitoring. Community obligations were: providing a democratic and transparent authority structure; creating a sustainable ecosystem; demonstrating a responsible and innovative attitude. These reciprocal obligations emerging from the analysis of the case studies represented the basis for the further development of the research and for exploring the opensourcing phenomenon further by means of a quantitative survey. Findings of the case studies informed the development of an online questionnaire that was statistically validated. The survey was administered to customers and community representatives of seven exemplars of opensourcing (these comprised the three case studies). Statistical analysis such as Mann-Whitney tests and regression analysis were performed on the questionnaire responses to explore the relationship between customer and community obligations and opensourcing success. The results show that the fulfillment of certain customer and community obligations is significantly associated with opensourcing success.

Critical Summary

Multimethod research designs that include one or more case studies represent a strategy for maximizing the amount of information related to a specific phenomenon, research problem, or organization. The research program may be based on complementary methods that explore different aspects or on methods that may be integrated to provide a richer analysis. In both cases, the case study could be used either as an exploratory tool (such as in Ågerfalk and Fitzgerald's research) or as an explanatory tool to provide a further in-depth qualitative explanation of data gathered with other methods (e.g., statistics).

It can form part of either the first stage or a subsequent stage of the research program.

Vincenza Priola

See also Comparing the Case Study With Other Methodologies; Epistemology; Mixed Methods in Case Study Research; Multiple Sources of Evidence; Ontology; Triangulation

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MULTIPLE-CASE DESIGNS

A case study is a methodological approach that involves the in-depth exploration of a specific bounded system, utilizing multiple forms of data collection to systemically gather information on how the system operates or functions. Robert Stake, an expert in case study research, indicates that a case study must be "bounded" so the case is a separate entity in terms of time, place, or some physical boundary. This bounded system may be as simple as a single individual or group, or as complex as a neighborhood, organization, or culture. It may also include programs, events, or activity. Multiple-case design, or collective case design, refers to case study research in which several instrumental bounded cases are selected to develop a more in-depth understanding of the phenomena than a single case can provide.

Conceptual Overview and Discussion

Multiple-case design, or the use of collective case studies, involves the extensive study of a number of instrumental case studies. The cases are carefully selected to develop a better understanding of the issue or to theorize about a broader context. The researcher may choose cases that are alike in order to analyze findings across similar cases. This is somewhat similar to a multiple experiment and follows replication logic. A mix of negative and positive cases may be chosen in order to examine variations and differences between the cases. Multiple-case design allows examination of processes and outcomes across many cases, identification of how individual cases might be affected by different environments, and the specific conditions under which a finding might occur. It may also help to form more general categories of how the specific conditions might be related. This makes the results more powerful than those from a single case and demonstrates the issues across a more varied range of circumstances than a single case can provide. The generalizability is enhanced relative to a single case. Examining the issues across cases can help to provide a tougher test of a theory. Therefore, multiple-case designs are more powerful than single-case designs in this respect, and more extensive descriptions and explanations of the issues are developed.

Application

Case study research involves extensive data collection with multiple forms of data. The data collection may include a combination of document analysis, in-depth interviews, participant observation, oral histories, multimedia, situation analysis, or be a clinical case study. The data collection is pointed in focus and provides rich, detailed, and in-depth information

There are two procedures in multiple-case design. The first is a parallel design where all of the case studies are selected in advance and are conducted at the same time. This may require the participation of a number of different researchers or investigators. The second is a sequential design where the case studies follow each other. The selection of each case study is informed by the outcome of the previously completed case. The cases may also incorporate a time dimension. Retrospective cases look at historical information. Prospective cases examine changes over time, and events as they occur.

According to Robert Yin, well known in the field of qualitative research, there are three case

study designs in multiple case studies in which multiple case studies are actual replications. Exploratory case studies are conducted before a research question is identified; they typically have some organizational framework. Exploratory case studies are seen as a prelude to a large study and may be a pilot study. Explanatory case studies are the causal case studies in which the information from the cases is related to a theoretical position. Descriptive case studies follow a descriptive theory throughout the study.

The interpretation of the data in multiple-case study design follows several stages. First, each case in the research is treated as a single case. All of the data in each single bounded case are carefully examined, and the data organized into a comprehensive description that is a unique, holistic entity.

Once a full account of each case is developed, cross-case comparisons can be developed. How a comparison is conducted will depend on the purpose of the study and how the cases were sampled. Matrices, tables, scatter plots, or other display tools can be utilized to depict the layers of data, clarify key variables, and identify how the key variables are patterned in each case. The data are examined across cases to see if a pattern of variables or themes transcends the cases. Patterns are noted and clarified, commonalities in essential elements or components identified, instances of variables counted, clusters developed and sorted along some dimension, and correlations between variables and intervening variables noted. Underlying similarities and constant associations are then developed to form more general explanations.

An example of a multiple-case design was conducted by Linda Chmiliar. In this study, five cases were examined consisting of a student with learning disabilities participating in an inclusive classroom, the parent of that student, and the inclusion teacher of the student. In each case, the perspectives of the student, parent, and teacher were developed and examined independently and then across the stakeholders in each case for a withincase comparison. Important similarities and differences were found between the student, parent, and teacher perspectives. Once this was completed for all five cases, the perspectives were examined across cases in a cross-case analysis. A comparison of the student perspectives, parent perspectives, and teacher perspectives was conducted across all

of the cases. In addition, each case as an entity was compared to each of the other cases. In a withincase comparison, an important finding was that student perspectives on issues in the classroom were often very different from the perspectives of the teacher and the parent. This difference in perspective many lead to misunderstandings and behavioral issues. In a cross-case analysis, it was found that the parents in each study had very different understandings of the Individualized Program Plan (IPP) process than the teachers in each of the cases. This finding could lead to changes in the IPP process in the schools involved. This study yielded a rich and detailed case-by-case description, as well as important similarities both within and between cases with significant practical implications for teaching practice in the inclusive classroom.

Critical Summary

Multiple-case design is a research methodology in which several instrumental, bounded cases are examined using multiple data collection methods. This research methodology is more powerful than single-case designs as it provides more extensive descriptions and explanations of the phenomenon or issue. Cross-case examination is employed to develop an in-depth understanding of a phenomenon or issue that may yield increased generalizability. Cause-and-effect relationships may be identified, and examination of the similarities and differences across cases may strengthen theory.

Linda Chmiliar

See also Qualitative Analysis in Case Study; Quantitative Analysis in Case Study; Reporting Case Study Research; Single-Case Designs; Triangulation; Within-Case Analysis

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MULTIPLE SELFING

Analyzing the self is central in the work of Erving Goffman. The focus of his interest is on investigating the reason people behave differently and play diverse roles depending on unique social settings. In several microsociological studies, he conceptualized individuals as actors and demonstrated that they play particular roles with respect to the specific situation in which they find themselves. Generally, according to Goffman, the self is formed in a steady and active process. In this process, the self is both an element and a product of interactions. He conceptualized the self as a kind of performance. Therefore, differences in interactions and in social situations correspond to diverse presentations of the self. As such, each person engages in multiple selfing, which provides a useful focus for case study analysis of identities at work (see Application section, below).

Conceptual Overview and Discussion

Goffman's conception of self is influenced in central aspects by the model of identity of the philosopher and social psychologist George Herbert Mead. Consequently, the self in the work of Goffman is constituted by the socialization within the processes of interaction and by self-reflections. According to him, a person is an active social subject who experiences diverse social situations and is also fundamentally dependent on the external. Goffman's model of multiple selfing corresponds with his concept of identity. He separates analytically the person's identity into three dimensions: (1) the social identity, (2) the personal identity, and (3) the subjective identity.

Social identity refers to belonging to a social group. This can be affiliation with a specific gender, ethnicity, milieu, religion, or the possession of a particular level of education. When we belong to a social group, those outside the group expect us to

exhibit specific behaviors that fit well within the stereotyped attributes of this group. Furthermore, we are judged by outsiders as to whether we achieve the expectations of the group's behavior or not. Our self-awareness is based on how we are perceived by others. With its self-representation, the subject tries to correspond to specific external expectations concerning the specific form of our activities. However, we can also use the art of self-representation strategically to camouflage other subtle plans.

Our personal identities are based on our unique biographies. Personal identity, similar to Goffman's concept of social identity, is predominantly shaped by definitions that other people have of us. This means that each of us is externally attributed with a unique personal specificity, based on some knowledge about us—our biography, name, style of dress, body structure. We try to fit within these external attributes and give appropriate information about ourselves to the outside. Through this self-management in handling personal information, we also play an important part in shaping our personal identity.

In contrast to social identity and personal identity, which are shaped mainly through the attributions of others, our subjective identities are primarily our own sense of self-consciousness. Our subjective identities are based on our own selfreflexivity and feelings concerning our roles and activities. With ongoing social experiences, we bit by bit gain a subjective feeling of our individual positions and characteristics. But a subjective identity does not come entirely of its own volition. It comes from self-monitoring and constructions of the self, which are socially controlled and which are linked to the two other forms of identity. With the internalization of specific identity patterns, we follow a specific conception and an estimated mind-set about our own subjective identity. This comes with a self-evaluation of how our subjective identity fits within the norm definition of the unique identity's characteristics. As a consequence, this affects how we think about ourselves and our level of self-respect. For example, a sense of shame often comes not only from negative experiences but also from negative self-experiences.

In the way Goffman defines the dimensions of identities with respect to several external effects, it becomes clear that the unique structure of the situational frame also has an impact on the self and its dimensions of identity.

Framing the Self

According to Goffman, activities are like actors in a play on a stage in a performance presented for a specific audience. Similar to a theater audience, the audience in a social scene reacts with applause or with disapproval. The actors take notice of audience reactions and adapt their performance. Therefore, the relation between the actor's performance and the audience is one of interaction. Specific systems of interaction imply rules, which require particular kinds of activities. Every social situation generates unique expectations of the mode of interaction and about the performance fitting within the situation. This is at the heart of Goffman's concept of frame. A frame is a specific set of situational rules that allows us to categorize and understand a situation and its sense. With their inclusion in a frame, everyday activities become intelligible. Usually we try to fit our activities and our self within the rules and conditions of each specific frame.

As there are multiple different frames in which we each act, our activities and our self differ from frame to frame. In other words, the self specifies itself differently within dissimilar frames. For example, in different situations and for different audiences we tell dissimilar stories about ourselves. This is because we want to leave a good impression of ourselves on the audience.

Application

According to Goffman, the self and its activities as well as its experiences are determined by diverse frames. An example that Goffman gives for the dependence of the self on the frame is exemplified in his book, Asylums. Here the self of patients changed with their admission into psychiatric care within the asylum. The former self is oppressed by several indignities, but within the asylum, a new self develops that fits within that context. For example, the change of frame is signified by the wall and the gate that separate the inside of the clinic from the outside, and consequently separate the patient from the former social network. Within the frame of psychiatric care in the asylum, the patient is under the ongoing control of the clinic staff. Being forced to leave personal belongings outside the asylum is equal to a loss of some part of identity. The patient is under a complete regimen

and loses his or her self-determination. With entrance into the asylum, the patient has adapted to the new frame. A new self is formed that, for example, reduces personal engagement and is opposed to the personal. Activities are transformed into the order of the frame and are undertaken to gain advantages from the specific order that characterizes the psychiatric care of the asylum. For example, the self adapts its activities to those that apply in the internal clinic system of privileges.

Critical Summary

In his research, Goffman generally shows that people have an extensive ability to adapt their self to the situational frames in which they find themselves. Therefore, the self can change from frame to frame. However, it can be critically argued that Goffman fails to account for the power of general conditions that form common norms, rituals, and discourses and their impact on different frames, on the activities of persons, and on persons' multiple selfing.

Lars Meier

See also Frame Analysis; Self-Presentation

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MULTIPLE SOURCES OF EVIDENCE

While case studies can be built on evidence from one source, it is generally recommended that data be obtained in a variety of ways. Studies where information from different sources corroborates the same sets of facts or events are considered to be of higher quality because concerns related to construct validity are mitigated. This entry contains a discussion of commonly used sources of evidence in case study research, benefits of using multiple sources, and examples of case studies that have adopted this principle of data collection.

Conceptual Overview and Discussion

Robert Yin has described strengths and drawbacks of sources of evidence that is often used in case studies (e.g., documents, archival records, interviews, direct observations, participant observations, and physical artifacts), and the need for corroborating and supplementing findings using a diversity of approaches. A brief overview of these issues is provided next.

Documents—such as memos, internal reports, and proposals—though not always accurate in their representation of actual events, are useful for confirming and augmenting information found by other means. Weaknesses such as reporting biases and researcher selectivity are qualified by strengths arising from the potential breadth of data availability and the unobtrusive nature of data collection. Archival information, both quantitative and qualitative, while indicative of trends and contextual perspectives, should also be subjected to the same considerations and concerns associated with document use. Interviews tend to be either openended (where interviewees provide their opinions, factual information, directions for further investigations, or additional sources of evidence), focused (where the interview is loosely structured around a set of questions), or formal surveys (where the interview follows a well-structured survey format that can be used in conjunction with additional assessments of the situation). While interviews generate direct insights into issues, biases can be introduced by interviewers as well as by interviewees who respond in ways they perceive are expected of them. A direct observation of processes as they unfold grounds data within a context. This, however, can be burdensome in terms of budgetary and time investments; moreover, a mere realization of being observed is capable of distorting people's behaviors. Participant observation is a variation on this approach where researchers actually assume

roles within events and are not passive observers. Finally, physical artifacts are to tangible items such as technological devices and instruments, and allow for analyses of their potential applications.

Trade-offs between strengths and weaknesses, as well as researcher training and expertise in collecting information by these and other means are typically considered while choosing sources of evidence to access. A key benefit of using multiple sources is that of data triangulation where a broad range of inquiries converges on the same set of conclusions. Construct validity (i.e., the extent to which a construct corresponds with variables used to measure it) is also enhanced as additional measures are generated through each investigation. Karen Eisenhardt further discusses the importance of multiple sources of evidence in building theories from case study data.

Application

Two examples of the use of multiple data sources are provided—specifically: (1) the use of interviews, direct observations, participant observations, and documentation by Tim Foster in examining how different levels of an industrial Web site created value for a mining company's supply chain members; and (2) the use of interviews with different types of frontline employees and internal documentation by Loïc Plé in uncovering customer opportunism at a retail bank.

Tim Foster examined how LKAB (a leading Swedish minerals company) used various levels within its Web site in creating value along its supply chain. Two key respondents provided assistance and information via face-to-face interviews. This, combined with direct observations of the respondents' usage of the Internet, extranet, and intranet components of the firm's Web site; ongoing participant observation via continual researcher Web site use over a longer duration; and access to online and offline documentation such as pamphlets, brochures, annual reports, and internal memos provided a solid foundation for understanding enhanced connectivity between suppliers and partners, LKAB, buyers, end users, and other stakeholders.

Loïc Plé conducted an exploratory case study in a retail banking context that indicated that having access to more channels of distribution leads to opportunistic behaviors by customers. A French bank that allowed customers to interact with company representatives via physical bank branches, incoming call centers (intended for handling basic customer queries), and outgoing call centers (intended for selling customers basic products and services) was chosen for the study. While in-depth interviews with branch-based financial advisors revealed no employee perceptions of inappropriate behaviors, interviews with call center operators provided evidence for two types of customer opportunism—that which occurred in a premeditated fashion (e.g., when customers deliberately contacted incoming call-center operators for loans previously denied by financial advisors at the branch) or was spontaneous (e.g., when such requests were made to outgoing call-center employees who called on unrelated business). Varying employee perceptions across different distribution channels provided holistic insights into hindrances to cross-channel coordination. Analyses of written notes, documentation, and videotapes related to procedural issues highlighted the complementary, and not cannibalistic, purpose of each call-center, thus leading to recommendations of implementing impersonal coordination mechanisms across channels.

Critical Summary

Gathering and analyzing evidence from multiple, as opposed to a single, source is recommended for enhancing the quality of case studies. Corroboration of findings from more than one data source addresses the issue of construct validity as more than one measure is used in assessing issues of interest. Additional investigations and creativity in reconciling apparent contradictions are called for where inconsistencies in findings from different sources emerge.

Namita Bhatnagar

See also Autobiography; Autoethnography; Case Study Surveys; Documentation as Evidence; Informant Bias

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MULTI-SITE CASE STUDY

The term *multi-site case studies* is often used interchangeably with multiple-case studies, comparative case studies, and what Robert Stake termed "collective case studies." A multi-site case study investigates a defined, contemporary phenomenon that is common to two or more real-world or naturalistic settings. As well, a multi-site case study offers a means of understanding an individual, event, policy, program, or group via multiple representations of that phenomenon. In other words, by illuminating the experiences, implications, or effects of a phenomenon in more than one setting, wider understandings about a phenomenon can emerge. Typically, the research design in a multi-site case study is the same across all sites. This means the same unit(s) of analysis or phenomenon is studied in light of the same key research questions. In addition, the same or similar data collection, analysis, and reporting approaches are employed across the sites. Hence, as well as eliciting site-specific findings, a multisite case study has the potential to enable valid cross-site syntheses and replication claims.

Conceptual Overview and Discussion

The capacity of a multi-site case study to elicit common findings from across different settings is one of its design strengths. Case depictions of each site are also developed and show the particular and unique as well as what is common to all. As a result, richer and deeper understandings of a phenomenon are revealed. This prospect of providing dense descriptions with generalizable insights into a phenomenon is why Robert Herriott and William

Firestone argued that findings from a multi-site case study gave greater confidence to the research field than a single case study. Yet a multi-site case study is not inherently better than a single case study. Rather, the challenge for case researchers is to select the type that is appropriate for the intended research. A decision to select one form of case study over the other—or any other method—is usually best taken in light of the research purposes, questions, conditions, and resources at play. As with a single case study, a multi-site case study can be made up of qualitative only, quantitative only, or mixed method data. Descriptive, exploratory, or explanatory are common types of case studies that suit different research purposes and circumstances. For example, exploratory and explanatory cases are suited to research that is intended to produce theory. Because it is a flexible method and strategy, a multi-site case study design can become the overarching framework of research that consists of several related investigations or it can be nested within a larger study.

The need for researchers to anticipate ethical and procedural issues in the field work and reporting of multi-site cases is especially pronounced. For example, some participants who are interviewed may have unusual speech patterns that identify them, if their perceptions are included in a report verbatim. Careful observing and listening practices during field work can help reduce the risk of this ultimately happening. In addition, when reporting quotes, commonly used words can replace any idiosyncratic terms that participants have used. These research practices are time-consuming but necessary ethically. Moreover, the very act of asking an individual to give time to being part of, reading about, or acting upon findings from a study warrants respect from a researcher. It is unethical to encourage individuals to change their ways because of findings from a sloppy or unsound study. A researcher's first obligation is to participants and, if not taken seriously, may result in long-term unintended consequences for the participants at the case sites. For example, some minorities such as indigenous groups in many Western countries have often felt poorly treated by researchers who undertook studies that involved them yet never shared those findings with participants.

As Robert Yin maintains, the purpose of replication in case study research is to yield similar findings about a unit or units of analysis across the sites or to be able to explain logically why findings were not consistent. Purposive sampling is often useful but only one of several viable ways of accessing a sample for a multi-site case study. A multi-site case study is poorly suited for asking "how many" or "how often" questions or establishing the prevalence or frequency of something.

Analyzing data can be particularly challenging for multi-site case researchers. The sheer volume of data may overwhelm some novice researchers. Identifying patterns and themes among triangulated data can prove difficult for many researchers. However, when what a researcher hears, observes, and reads at a site is consistent, the triangulated data can be sturdy and helpful. There are numerous ways to analyze multi-site case studies. Almost inevitably, the researcher's ontological, epistemological, and other methodological stances will influence the analytic approach selected. Ideally, a researcher's view of what constitutes "reality" and how meaning comes from knowing are explicitly acknowledged, underpinning features of a multisite case study. The approach used to analyze a descriptive case will likely be different from those used in exploratory or explanatory multi-site case studies. Further issues in designing, conducting, analyzing, and reporting aspects of a multi-site case study are considered in the exemplar below.

Application

Undertaking a multi-site case study enabled Bill Mulford, Halia Silins, and Ken Leithwood to portray the complicated school settings in which two principals successfully promoted organizational learning practices among teachers who contributed to improved student outcomes. The multi-site case study responded to "why" and "how" research questions and richly showed why and how the principals were highly effective, transformational leaders.

One key purpose of the study was to provide principals and teachers with real-life depictions of schools that, on the basis of research evidence, were improving students' academic and social learning. The multi-site case study was part of a larger longitudinal study that required a team of researchers and hence considerable funding. Survey results from 3,500 year-10 students plus 2,500 of

their teachers helped to identify the two principals who became the objects or units of analysis in the case studies that followed. Data from the case studies informed the design of a subsequent large-scale survey that was administered to many of those students, teachers, and principals who had originally been surveyed. Finally, results from the large quantitative and qualitative database gathered over 4 years shaped the development of several national and international professional learning initiatives for school leaders.

There are numerous reasons the research project produced compelling results. In terms of the multisite case study, a sound evidence base was used to inform the research design. This included using theory, research, and the researchers' experiences to document a series of claims or propositions about school leadership efficacy and its hypothesized link to organizational learning and student outcomes. The key research questions were clearly expressed and oriented toward achieving a collective or public good. In the field work at each of the school sites, two researchers shadowed, observed, and interviewed each principal and analyzed documents over a week. The same two researchers then interviewed teachers. Almost all teachers in each of the schools agreed to be interviewed individually. Initial researcher impressions from the triangulated data were checked with participating teachers and the principal at each school. The feedback enabled researchers to verify whether their tentative conclusions cohered with the views of participants. A book containing the two cases emerged from this study. Each of the lengthy cases showed how the principal contributed to student outcomes via promoting organizational learning at a school site.

At the time of the study, much of the existing research in the Western world about highly successful schools drew on urban "middle-class" schools. In this instance, one site was a high-poverty school and the other a rural school, effectively showing a way to recognize successes in schools with challenging circumstances. Set against Robert Yin's criteria of exemplary case studies, Bill Mulford and colleagues' multi-site cases shine because they painstakingly captured publicly important school achievements. The cases are a fine example of highly disciplined planning, field work, data analysis, and reporting. The wide-ranging evidence gathered by the researchers was published in sufficient

detail to enable the study to be replicated and readers to judge the data against conclusions. Finally, the in-depth and complex multi-site cases were outlined in an engaging story-like way and provided readers with fascinating insights into two schools.

Critical Summary

Multi-site case study is often used interchangeably with terms such as multiple case study. A multi-site case study investigates a contemporary phenomenon found in two or more real-world or naturalistic settings. By richly illuminating the experiences, implications, or effects of a phenomenon in different settings, a multi-site case study produces data that show within-site patterns and cross-site syntheses. It is critical for the unit(s) of analysis to be identified in the planning and reporting of a multi-site case study.

When the design, conduct, analysis, and reporting of a multi-site case study are sound, the findings may be more compelling than those from a sound study where the sample is one cohort or a single phenomenon. A multi-site case study is a potentially useful means of capturing the complexity of a phenomenon while revealing rich understandings about the context in which it is based. In terms of costs, a multi-site case study can be one of the most expensive ways of undertaking an investigation due to the time- and labor-intensive nature of the research. Because the researchers are the main instrument in multi-site case study, it is particularly important for them to be well prepared for the field work requirements in a study. This preparation includes being able to make analytical judgments while collecting data. As well, ethical concerns may arise in a multi-site case study that do not occur in some forms of research. In turn, any ethical concern means researchers need to be well prepared to complete a valid and credible multi-site case study.

Pam Bishop

See also Collective Case Study; Comparative Case Study; Dissertation Proposal; Multiple-Case Designs

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NARRATIVE ANALYSIS

Narrative analysis is the sequencing of events and character identities derived by retrospective sensory representation. Narrative representations include, first, a chronology and, second, a whole structure of constituent elements that relate together in poetic form in order to examine how the past shapes the present, and present perspectives filter the past. Narrative analysis represents how the author and others value events, characters, and elements differently. Narrative analysis can be applied to cases used for pedagogy and theory building in the social sciences. Case narratives are sensory representations derived from oral, document, or observational sources (including dramaturgical gestures, decor, or architecture).

Conceptual Overview and Discussion

Narrative analysis can be applied to case study research to do theory building. Narrative analysis problematizes the relations of the narrative case to its authors. Catherine Kohler Riessman, for example, looks at narrative as representation of others' experience, to which the analyst does not have direct access. Narrative cases attempt to generalize from source materials (interviews, observations, texts, etc.) to fashion an abstracted chronology of events, character identities, and theoretic elements (themes, concepts, and perspectives). Narrative expectancy uses deductive reasoning by expecting that anticipatable character behaviors, elements,

or events are necessary to explicate and fit within particular kinds of plots or general models of human behavior and perception (tragedy, comedy, romantic adventure, or irony). Deductive narrative analysis that is retrospective (past-looking) sensemaking is a natural complement to *story analysis*, which completes a theory building cycle by acts of prospective (future-looking) sensemaking. Narrative analysis builds up a general narrative model (or theory) that emerges from *story-cases* collected in interviews, the field work, or available texts. Narrative analysis ascribes patterns to events, character identities, and other poetic elements (thoughts, frames, rhythms, etc.) across cases.

Narrative Poetics

Since Aristotle's *Poetics*, a key aspect of narrative analysis has been coherence of plot, an oftenlinear sequence of *beginning*, *middle*, *and end* (BME). The relationship of simple BME linear plots to more complex multiple simultaneous plots in epics continues to be a source of controversy. Narrative analysis can pose several challenges.

Russian Formalism

In Russian Formalism, narrative becomes a screen for stories. The concern is with moving story stuff (*fabula*) about to obtain an engaging or coherent plot (*sujeuret*). There is a hegemony here. Narrative ends up defining what is proper to story, and then changes the form to represent what remains in different orders.

Structuralism

Vladimir Propp analyzed narrative plots of folktales to identify functional components. Claude Lévi-Strauss and Roland Barthes performed structural analysis of narrative. William Labov's structuralist approach conceived narrative as amenable to formal theoretical frameworks, to the remodeling of human experience into narrative forms. Tzvetan Todorov coined the term la narratologie in 1969 to designate what he and other French structuralists (e.g., Roland Barthes, Claude Bremond, Gérard Genette, and A.-J. Greimas) imagined as a science of narrative modeled after the "pilotscience" of Ferdinand de Saussure's structural linguistics. As such, a narrative enters the biography of the speaker, placing events into sequence, and a memory of experience that loosely corresponds to originary events. Polkinghorne theorizes that people try to organize temporal events into meaningful experiences using narrative forms and patterns.

Alternatives to structuralist narrative are poststructuralist and postmodern narrative analysis, where the underlying assumption is narratives are forms of social control over human identity and subjectivity.

Narrative as Hegemonic

Mikhail Bakhtin, in Dostoevsky's Poetics, asserts that narrative genres are constructed as solid unshakable monological frameworks. There are several implications for case research. Who decides what the plot is? Is it the author of the narrative or the narrative analyst? When people present the narrative analyst with multiple plot constructions, how are these to be sorted out? For example, there can be official plots advanced by owners and managers of enterprises that do not match the plots perceived by employees, customers, vendors, regulators, and other stakeholders. Narrative analysis asks how many narratives there are, and how they are distributed across the social scene. Verification of narrative content becomes a matter of triangulation. Narratives presented in cases are co-constructions by the analysts' and subjects' predispositions, subjectivities, and expectations about what constitutes a "proper" narrative.

Historical Narrative Fictions

When plots change over time, a historical or genealogical approach to narrative analysis is warranted. Hayden White asserts that historians often construct histories into narrative fictions that disguise the author's moral arguments for particular historical chronicles. The implication for case study is that the narrative of the case can appear factual or empiric, but mask an ideological position, such as managerialism (constituting characters, event-plotlines from manager's point of view, or imposing structure/form onto the chaos of human experience). Friedrich Nietzsche, Michel Foucault, and other genealogists trace the social construction of narrative perspectives, looking at who has the power and knowledge to set up narrative order for others.

Poststructural Narratives

There are a number of poststructuralist approaches to narrative analysis. For example, Norman Denzin looks at narrative interviewing as an interactional, contextual production, even before it is read and interpreted. Narratives are rooted in family beginnings, gender, race, and social class.

There is the poststructuralist challenge from Jacques Derrida about the ethics of an analyst doing an inquisition to elicit narrative. The persons may not be ready to narrate something that has been traumatic, or eliciting narrative can be a demand for a confession, or forcing people to put more order to events and characters than may be the case. This raises the question: Where does the narrative chronology, form, or structural poetics reside? Is it in the mind of the analyst, an expected type of narrative that is popular, or a resident in Being?

Postmodern Narrative

The postmodern narrative challenge is to modern narrative. Mark Currie develops postmodern narrative theory as a way to analyze the social and cultural function of narrative. For example, as the narrative analyst becomes immersed in texts of all kinds, there is a temptation to present a case that is an amalgamation of details (quotes, observations, facts, references) and ignore characters, events, and elements that do not fit constructs

under study. In case books, for instance, the case can be constructed to illustrate particular social science theories, models, or concepts. While pedagogically expedient, the amalgamated case narrative can be an oversimplification of the complexity of the human condition. The amalgamated case constructed by the analyst can be so selective that many others' plots and character perspectives are marginalized, or erased.

The demand for narrative closure in case research can be a matter of projecting moral representation of selected events, rendered into a narrative sequence that becomes intelligible in retrospect.

It is recommended that narrative plots and structures be treated as representations, as impressions or fictions that need verification. Preoccupied with demonstrating theory in cases, cases can be constructed to narrate events according to closure suggested by said theory. Over the course of case study, numerous narrative plots and forms are likely to emerge, but may be ignored to fit the case as demonstration of theory expectations.

Methods

There are a variety of methods for narrative analysis. Theme analysis is a categorization of observations, documents, and transcripts of meetings or interviews rendered into text, assessing events, viewpoints, identities, topics of speech acts, or whatever suits the imagination and interest of participants or the theoretical preoccupation of analysts. Plot analysis is a comparison of plot lines between subjects, noting various improvisations and omissions. Network analysis introduces narrative themes or plots in a graphic display. Deconstruction analysis assesses such facets of narrative as binary oppositions (male-female, boss-worker, black-white, etc.), the hierarchical order presented in the narrative, exceptions to narrative closure, marginalized voices or plots, and possible resituations to the narrative pattern.

Application

Two exemplars of narrative analysis are Hayden White's *The Content of the Form*, and *Inside the Mouse* by Karen Klugman, Jane Kuenz, Shelton Waldrep, Susan Willis, and The Disney Project. Hayden White looks at history as narrative fiction.

A case can therefore exemplify various plot structures (romantic, tragic, comedic, or satiric), and these can be in complex combinations (complex plots as Aristotle noted). White looks at types of world hypothesis (following Steven Pepper's work), the representation of the world (or its organizations) in formalist, mechanistic, organic, or contextualist terms. A formalist narrative is about types and classifications, and extends to a sort of abstraction. A mechanistic representation is as a machine. An organic one is as a cell, a plant, tree, or some other biological metaphor. The contextualist representation is about strands, and stranding, about moving around blockages (novel emergence) in one's path, sort of feeling one's way forward without being able to chart a course by looking ahead. It is the contextualist representation that looks most at the historical narrative to reckon what the way forward is.

In the Disney ethnographies, Klugman and colleagues worked on the case by specialty. One focused on the narrative of the architecture, its more postmodern narrative rendering of traditional Disney narrative themes. Another looked at the work of Disneyland theme park employees, their emotional labor and their being forced to smile, having to wear costumes instead of uniforms, and being on stage instead of at work. Employees who forget to do that robotic smile might lose their job. Another noticed the spectacle of the crowds, what they looked at, made the crowd the focus of observation, even took photos of other people taking photos. The Disney Project team noticed that as you enter the theme parks, you enter a sort of theater peopled by cast members instead of employees. The architecture itself scripts a story supported by auditory and olfactory cues, so as to give the impression of Main Street in small town America, or of another country in Epcot (at least its capitalist products). The effect of narrative control is the erasure of spontaneity in highly orchestrated narrative-programming of a prepackaged limited set of choices, each fully narrated in explication so guests do not need to think and can just relinquish control.

Critical Summary

Every case has an implicit narrative. Narrative analysis can make the implicit narratives in case study explicit. Each case is one or more representations in

narrative. Narrative analysis from the poetic and structuralist approaches assesses forms and thematic content. Poststructuralist narrative analyses trace the hegemony of narrative form onto human experience.

Narrative is monological/monovocal, even in its act of double narration (including some sound bites used by some other narrators); is a linearization; a beginning, middle, and end (BME) formformula; quite compatible with the model-theory of empiric science and its abstract-frame.

David Michael Boje

See also Inductivism; Storytelling

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NARRATIVES

Narratives are stories that provide, in sequential order, the meaningful telling of events. In this telling, one sees the connection between biography, history, and society. Narratives are told for a particular audience at a particular time and place. By their very nature, narratives are case-centered forms of social research.

Critical Discussion

In their groundbreaking work, Labov and Waletzky draw on linguistics to describe the structures narratives take. First is abstraction. This is in essence the introduction to the narrative where the narrator establishes the right to tell the story. Second is orientation. In this element the narrator provides the basic information needed to understand the story to follow. Next is the complication of the narrative. This is the point where the narrative shows that a turn in events has happened. This is followed by evaluation. At this stage the narrative provides the audience with the explanation as to why this story is important. Subsequently the narrator provides the results; the story is resolved. Last is the coda, the conclusion of the narrative indicating that the story is finished.

Some have found that this understanding of narrative is restrictive and supposes that all stories are told in a linear manner. Further to this, a strict adherence to the narrative structure does not allow an understanding of narratives beyond their linguistic qualities. In particular, the focus on structure does not allow one to grasp the relationship between the narrator and the audience (i.e., participant and researcher). Researchers using narratives have taken Labov and Waletzky's structural conception and built upon it to generate a more social understanding of what a narrative is. One such researcher, Elliot Mishler (another pioneer in the development of narratives in the social sciences), argues that narratives and life stories should be seen as praxis. When discussing narratives as praxis, one is making the assumption that there is a dialectical relationship between individual's positions as both subjects (active agents) and objects (adaptation to social structures). Narratives are therefore social actions that embody adaptation, resistance, and appropriation of cultural norms. Narratives come to represent a reflexive interpretation of social and cultural norms through the dialogues within which the narratives happen. Mishler also states that there are a further three assumptions that underlie this theoretical conception of narrative as praxis. First is the notion that narratives are socially situated actions. This is to say that narratives are presented in a dialogical manner where there are questions posed and the narrative becomes the answer. Second for Mishler is that narratives are identity performances. Through a narrative, one presents who one is to the audience. Last is the idea that narratives are fusions of form and content. Through careful transcription of a narrative, one is able to see how the narrative is constructed in a way that comes to incorporate the rules of language and social interaction. At this assumption we see where Labov and Waletzky's narrative structure influences Mishler's own understanding. It is that, despite what the content may be, narratives have a preexisting form into which people incorporate content.

It should not be assumed that there is only one "type" of narrative. One needs to realize that within all research there are two narratives that contribute to the telling of a story—ontological and epistemological narratives. Ontological narratives are those that look at the ways in which individual narrators come to understand and articulate their social "reality." This falls in line with much of what was discussed above in relation to Labov and Waletzky and to Mishler. Whereas ontological narratives have the participant as the main character of the story, epistemological narratives have the researcher as the central figure. By using a number of different ontological narratives and a theoretical/conceptual framework, researchers create a new narrative that helps one to understand a particular social world. It is through epistemological narratives that researchers can start to articulate the temporal, spatial, social, cultural, political, and economic connections between individuals' telling of their experiences and the various social structures that are incorporated into everyday life.

Application

Since the 1980s, and perhaps more predominantly since the postmodern/cultural turn of the 1990s, narratives have become truly an interdisciplinary source of data, which has meant a further "turn"—the narrative turn. As Catherine Kohler Riessman points out, this turn has been brought on by shifts in epistemologies (in particular, a move away from positivist ones), theoretical shifts (postmodernity), political shifts (focus on the individual), and often under-mentioned technological shifts (portable recording devices). One can see that the use of narratives is not confined to a specific discipline, as these shifts have been experienced throughout the social sciences and humanities.

Mishler uses narratives to examine adult identity formation. What he does in particular is conduct extensive interviews with craft artists to explore their working narratives. These narratives include how the participants got involved with craftwork, discontinuities and interruptions to their working trajectory, cohesion, and relationships within the working environment and within the family. He argues that through narratives, and his insistence that only through narratives, can one come to grasp how people make sense of their experiences and actions. For example, when exploring how they got involved with craftwork, participants went back to early childhood memories that set them on a particular path. Mishler argues that by not understanding the responses as narratives, researchers' abilities to grasp the contexts and nuances of a person's life are hindered. As such, the use of narratives is an epistemological stance that moves beyond closed-ended quantitative responses and grounded theory coding.

Critical Summary

Within the concept of narrative there are three dimensions explicit and implicit in its definition: temporality, meaningfulness, and sociality. The temporal element demonstrates the interrelation between individuals' lives and social control. The second point, that narratives are meaningful, indicates that narratives are not necessarily instances of "truth" but rather what is important to the narrators; what are the significant events and experience as they see them? Finally, narratives are social. The retelling of a narrative is located within a specific social context and created for a specific audience. It is embedded within social and cultural expectations, political and economic climates, and geographical places.

L. Lynda Harling Stalker

See also Character; Narrative Analysis; Storytelling

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NATIVE POINTS OF VIEW

The concept of *native points of view* is based on an acknowledgment that the individuals or groups at the center of ethnographic case studies have their own ways of seeing, understanding, and experiencing reality. In simple terms, the concept refers to the emic or insider's point of view.

Conceptual Overview and Discussion

In the 19th century a number of scholars made use of missionary and military reports, as well as the accounts of travelers, to develop evolutionary models of a single, overarching human *culture*. These scholars consistently placed non-Western, small-scale societies near the bottom of the evolutionary scale. The models themselves tended to be ethnocentric, and suffered from various methodological and theoretical problems. As a reaction to some of these problems, Bronislaw Malinowski, Franz Boas, and others called for the ethnographic study of diverse cultures based on field work involving participant observation, and on an attempt to understand various beliefs and practices from the point of view of the cultural insider. These ideas are now firmly embedded in ethnographic practice.

How researchers have attempted to understand the insider's point of view, however, has differed greatly in terms of both theory and method. Researchers making use of the componential analysis or ethnoscience approach, for example, focused on language and the construction of folk taxonomies to gain a glimpse into how specific individuals gave order and meaning to various phenomena. Ethnomethodologists violated conventional ways of speaking (and sometimes behaving) to elicit responses that would provide a clue to the unspoken assumptions or "commonsense knowledge" people use to understand their interactions with others. While, in contrast, a relatively small number of researchers have engaged in the ethnographic

study of their own people (insider research), sometimes through the use of self-reflection and personal narratives (autoethnography), to challenge external representations of their particular community or social group.

The explicit distinction between *emic* and *etic* perspectives derives from the linguistic and behavioral research of Kenneth Pike in the 1960s. For Pike, the emic perspective examines how members of a particular society make sense of thought and behavior through the application of implicit structural rules that focus on culturally significant similarities and/or differences between phenomena. In other words, as Marvin Harris has pointed out, the aim of the researcher is to describe the thought processes that underlie people's actions—as the cultural insiders themselves would understand these processes. The etic perspective addresses cross-cultural issues in thought and behavior, including the researcher's attempt to apply theoretical or analytical concepts to make sense of what she or he observes in the field.

By the late 1980s a number of scholars began to critique some of the earlier etic and emic studies for depicting *culture*, and by implication the "native point of view," as consistent, homogeneous, and constant. Today, ethnographers not only accept the idea that "the native point of view" may play a significant role in case study research, but also the notion that there are a number of alternative and context-dependent points of view within any social group.

Application

Lila Abu-Lughod has been instrumental in pointing out the need to move away from representations and generalizations that depict people, their culture, and the ways they think and behave in simplistic and quasi-stereotypical terms. She argues that case study research should focus on the complexities of people's life experiences, and the variable nature of meaning (cross-cultural, intracultural, and from one situational context to another). In order to achieve these goals, Abu-Lughod has made use of both a reflexive approach to ethnography, and a focus on the narratives of a small, select group of Awalad 'Ali Bedouin women in Egypt—women of different generations, but linked together by various kinship ties.

In Writing Women's Worlds, Abu-Lughod focuses on the typical ethnographic themes that researchers have employed to discuss Middle Eastern societies, and the position of women in those societies: for example, patrilineality, polygyny, and honor and shame. She addresses these themes, however, from the perspective of the Awalad 'Ali women themselves. More specifically, Abu-Lughod makes use of in-depth interviews, quotes from recorded conversations, the stories and jokes women tell each other, written poetry, and related narratives to provide the reader with insight into the thoughts and feelings of these women. In the process, she succeeds in: (a) presenting Awalad 'Ali women as complex human beings who have their own ideas (sometimes conflicting with those of close relatives) about polygyny, honor and shame, and other aspects of their "culture"; (b) demonstrating that they are not victims or slaves of societal and cultural expectations; and (c) breaking down stereotypes of Bedouin women and the culture they are associated with. By not providing a conclusion to this ethnographic case, Abu-Lughod also ensures that the ethnographer does not have the final word on how these women's stories should be interpreted.

Critical Summary

Any case study that attempts to understand the knowledge, thought, and behavior of members of a particular society or social group must come to terms with the following notions. First, the insider's perspective is significant because people everywhere have their own ways of viewing, explaining, and experiencing reality. Second, there are multiple *native points of view* because there is considerable variability of thought and action within any society. And, third, an understanding of research topics, from the point of view of cultural insiders, is the first step toward avoiding the types of generalizations that may misrepresent or negatively affect research participants (and their communities).

Sam Migliore

See also Autoethnography; Case Study Research in Anthropology; Ethnography; Ethnomethodology; Reflexivity

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Naturalistic Context

The term *naturalistic context* represents a worldview that values multiple socially constructed realities that are not only created and interpreted in context but also shape the context itself. This way of thinking is often referred to as the naturalistic, hermeneutic, or interpretive paradigm. The researcher takes on a hermeneutic role in order to uncover as many interwoven perspectives as possible within the naturalistic context. The naturalistic context is comprised of people, places, and things in complex and dynamic evolving relationships. These complex and evolving situations constitute the phenomena under study.

Conceptual Overview and Discussion

Distinctions have been made between conventional (positivistic) and constructivist (naturalistic) paradigms. Jerome Bruner described these two distinct ways of thinking as paradigmatic and narrative modes of thought, respectively, and examined how they lead to two very different ways of interpreting reality. The paradigmatic mode tests for empirical truth while the narrative mode deals with human intentions, actions, and consequences. Jean Clandinin and Michael Connelly offer five distinctions between narrative and paradigmatic forms of knowing: (1) Along the temporal dimension, narrative knowing incorporates a sense of past-present-future, of events

unfolding over time, while in paradigmatic knowing, a sense of timelessness is valued; (2) narrative thinking focuses on persons in a process of change, contrasting with paradigmatic knowing, where people-free notions are valued; (3) narrative knowing focuses on meaning behind actions embedded in a narrative history, while in paradigmatic knowing, actions are taken as directly evidential; (4) narrative knowing values the person in context, while in paradigmatic knowing, the universal case is valued; and (5) narrative knowing always has a sense of tentativeness, that there are multiple possible interpretations from multiple perspectives for an event, while in paradigmatic knowing, the establishment of causal links and solutions to problems is valued. Thus, in naturalistic, interpretive, narrative forms of knowing, the context is an essential component of the research. Therefore, cases are studied in the naturalistic context—what Donald Schön calls the "swampy lowlands of practice" rather than the "solid high ground of theory."

Application

An ontological shift from positivistic to naturalistic forms of knowledge construction—from searching for "the truth" to developing "more truthfulness" by including multiple perspectives—creates an epistemological shift that Donald Schön calls a shift from technical rationality to refection-in-action. This leads to two possible kinds of case study applications—first, one in which a case is studied and reported to provide new theoretical understandings, and the second in which cases are created to inform professional practice. In the first kind, case study data collection takes place in the naturalistic context and it may be referred to as a field study. This means that data are collected within the places, or the natural context, in which the phenomenon under study took place rather than in a laboratory or a different setting. Participants are interviewed where they work, live, or otherwise carry out their daily activities. Observations, often called field notes, and other forms of action-based data collection take place in this contexts as well. Rather than making a priori assumptions of case boundaries and predetermined questions, these are allowed to emerge in the context of cyclical data collection. For example, in the field of education, Amy Wells, Diane Hirshberg, Martin Lipton, and

Jeannie Oakes carried out a multi-site case study of 10 schools through which they learned to build outward from the school site into the local community. What they had initially imagined would be a case geographically bounded by the school soon spilled out into the surrounding communities as they began to co-construct the boundaries of the cases with the help of their respondents. They discovered that each case was made up of different boundaries, of different people, places, and things in unique relationships depending on the particular situation. They point out that the size and shape of each case was as much a finding as it was a methodological consideration. In the second application, case books are created in which professionals are asked to tell or write storied cases from their own professional experience. These are then used as data or exemplars for other professionals (or those preparing to enter the profession) to get at underlying assumptions, often by having others inquire into them and respond with their own interpretations. This leads to multiple interpretations of the case under study. For example, Patricia Goldblatt and Deirdre Smith compiled 13 cases, written by practicing teachers, of professional dilemmas the teachers have encountered in their practice. These have been responded to in case commentaries by three to five education professors who gave different perspectives and open questions for reflection and discussion. This type of case book is used extensively in the education of a variety of professionals including teachers, doctors, and lawyers.

Critical Summary

Conducting research in the naturalistic context provides the opportunity to richly describe the complexity and some of the multiple perspectives present between and within individual participants as well as possible shifts over time. However, they need to be understood as one possible interpretation of events that are continuously open for further inquiry and interpretation. Interpretations should be presented as interpretive and descriptive, rather than as factual and prescriptive, in order to avoid appearing to provide simple solutions to complex dynamics and soon cover over taken-for-granted assumptions that would benefit from being exposed.

See also Constructivism; Contextualization; Field Notes; Hermeneutics; Holistic Designs; Interpretivism; Naturalistic Inquiry; Thick Description

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NATURALISTIC GENERALIZATION

Naturalistic generalization is a process where readers gain insight by reflecting on the details and descriptions presented in case studies. As readers recognize similarities in case study details and find descriptions that resonate with their own experiences, they consider whether their situations are similar enough to warrant generalizations. Naturalistic generalization invites readers to apply ideas from the natural and in-depth depictions presented in case studies to personal contexts.

Conceptual Overview and Discussion

Generalizing findings from research, either by receiving explicated or propositional understanding deductively from quantitative experiments, or by constructing tacit interpretive understanding inductively from qualitative inquiries, involves a transfer of knowledge from a study sample to another population. Unlike objective scientific generalization, naturalistic generalization generates possibilities for transferring knowledge more privately from subjective accounts such as case studies or stories.

Robert Stake and Deborah Trumbull introduced the term *naturalistic generalization*. Stake and Trumbull believed that generalizations can be made about particulars. They suggested that in addition to learning from explicated generalizations, individuals also learn from the generalizations they make during their everyday experiences as well as from the authors, teachers, and authorities in their lives. In Stake's view, naturalistic generalizations are conclusions arrived at through personal engagement in life's affairs or by vicarious experience so well constructed that readers feel as if it happened to them. Naturalistic generalization emphasizes practical, functional application of research findings that intuitively fall naturally in line with readers' ordinary experiences.

Discussing how naturalistic generalizations enable the reader to achieve personal understandings, Lincoln and Guba's 1985 work noted that this form of generalization builds on readers' tacit knowledge. In Lincoln and Guba's view, naturalistic generalizations permit detailed probing of an instance in question rather than mere surface description. As readers consider the in-depth particulars described in case studies, they may view similar circumstances in their lives with new empathy and intentionality.

Building on the idea of naturalistic generalization. Lincoln and Guba's 1985 work further established the concept of transferability (where a hypothesis developed in one context can be transferred to another context) and the concept of fittingness (where a hypothesis from one context is sufficiently congruent or "fits" in another). Naturalistic generalizations, transferability, and fittingness all rely on researchers to provide readers with the thick description and vicarious experiential accounts they need to determine if and how they will use the information in their own lives. These more interpretive processes of generalizing findings, with their heavy dependence on context and reader responsibility, are considered different from traditional scientific generalizations.

However, in 2008, Hellström argued that naturalistic generalization, transferability, and fittingness are well accommodated within already established ways of thinking about generalizing statements from one setting to another. Hellström asserted that it is premature to view these interpretive processes as a break with received scientific traditions. Rather, his examination of the philosophical roots of generalization concluded that

most forms of generalization require researchers to organize and present their findings in ways that indicate priority points. He asserted that it is the generalization implicit in the thick description that licenses, or even models the temporal sequences of causal propagation through the story/case. So, while aspects of naturalistic generalization clearly differ from other forms of generalization, all generalizations share the common goal of deepening understanding by transferring knowledge from a study sample to another population of interest.

Application

Naturalistic generalization is embedded within readers' personal and unique experiences. Small sample sizes, even single cases, can inform and enlighten. Application stems from readers themselves. In order to assist readers' application and creation of their own personal and relevant naturalistic generalizations, in his 1995 text, Stake emphasized that case researchers need to provide opportunity for vicarious experience. Accounts need to be personal, describing the things of our sensory experiences, not failing to attend to the matters that personal curiosity dictates. A narrative account, a story, a chronological presentation, personalistic description, and emphasis on time and place provide rich ingredients for vicarious experience. Stake emphasized that time, place, and person are the first three major steps. In addition, Stake underscored the point that although the researcher is not responsible for directing readers' naturalistic generalizations, it is a responsibility researchers must not ignore.

One seminal example where ethnographic researchers presented a vicarious account that has stimulated readers' naturalistic generalizations for nearly 50 years is *Boys in White: Student Culture in Medical School*, authored by Howard Becker, Blanche Geer, Everett Hughes, and Anselm Strauss in 1961. This case presented readers with a clear picture of the socialization and assimilation processes that student physicians experienced in the 1950s and 1960s. At the time, physicians were believed to be part of a fairly closed group. The detailed depictions of how students interacted with peers and faculty; how they integrated into the hierarchical hospital systems; and how they became immersed in their new professional culture offers

readers very personal illustrations that can be immediately visualized and understood. Professors instructing medical and other healthcare professionals continue to include this case in their curricula. The naturalistic generalizations that students and teachers can still draw from this powerful story remain relevant despite the current shift toward gender equality and professional transparency in healthcare fields.

Another example where a case study researcher presented a vicarious account that stimulated readers' naturalistic generalizations is What Children Bring to Light: A Constructivist Perspective on Children's Learning in Science, authored by Bonnie Shapiro in 1994. This longitudinal piece presents readers with stories of six children in an elementary school science class as they study the topic of "light." The stories view the world through the eyes of the children. The cases offer poignant insight into how children bring existing knowledge to science class; how they view their participation in class activities; and how they reflect on the information later. Educators involved with science curricula, those who are interested in engagement with science learning, and those who are interested in how children learn can readily and naturally translate these cases into their own day-to-day experiences.

Critical Summary

The goal of naturalistic generalization is not for researchers to prescribe conclusions. Rather, readers can gauge how and in what ways the particular details and stories presented in case studies may be applicable to their own situations. Sample sizes need not be large. Practical insights from narrative descriptions can evolve naturally and then be transferred or generalized to comparable situations.

Sherri Melrose

See also Constructivism; Integrating Independent Case Studies; Reuse of Qualitative Data

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NATURALISTIC INQUIRY

Naturalistic inquiry (also the title of Yvonna Lincoln and Egon Guba's influential book) poses a fundamental challenge to the paradigm of natural science—putting questions directly to nature and letting nature itself answer. Dissatisfied with the ability of this paradigm to answer many of the questions in both the natural and social sciences, Lincoln and Guba proposed an alternative paradigm they called "naturalistic." They outline an ethnographic approach to studying phenomena, using methods (typically qualitative) to collect data in naturally occurring settings.

Conceptual Overview and Discussion

Despite shying away from specifically defining what "naturalism" is, Lincoln and Guba assert that it requires certain interpretations and perspectives. They state that naturalism is first and foremost a function of what the investigator does; in other words, how research is conducted both in terms of data collection and analysis. They characterize the actions of researchers in two dimensions: the first is the extent of the investigator's influence upon the antecedent conditions of the behavior studied, and the second is the extent to which investigators impose their own views and beliefs upon the behavior studied. These two dimensions are melded into two tenets of naturalistic inquiry, that the inquirer (1) does not manipulate the phenomena of interest and (2) imposes no a priori units on the outcome.

Lincoln and Guba explain the need for a naturalist paradigm by outlining challenges and critiques of positivism. They portray these as so significant as to essentially kill positivist thought:

- *Inadequate conceptualization of science*.

 Positivism is imbalanced in its concern with a context of justification rather than a context of discovery. In other words, theory testing is privileged over theory generation in the positivist tradition, thereby constraining the possible uses or purposes of science.
- Oversimplified theory–fact relationship. Positivism has trouble with induction, which creates the possibility of many conclusions being reached given certain premises. By privileging deduction, there is no room for positivists to see facts that are not determined by some kind of theory.
- Overdependence on operationalism. Positivism evaluates truth claims by posing empirical questions, leading to a need to operationalize. This results in replacing the phenomenon under study with something that measures it.
- *Inevitable determinism and reductionism*. Positivism has these two very serious consequences: Determinism has significant implications for human agency, and reductionism portrays all phenomena as subject to a set of rules.
- Ignores "humanness." Positivism exhorts
 exogenous research, that which is driven by the
 researcher rather than the subjects being
 researched. It therefore excludes emic research and
 the wide range of topics of study associated with it.
- *Inability to deal with emergent formulations*. Because positivism is based on validating theoretical relationship, it is silent on the process of understanding novel relationships and phenomena.
- Flawed assumptions. Positivism is shown to rest on several flawed assumptions: that there is an objective ontological reality out there to be discovered, an ease of separation between the observer and the observed, assumptions of temporal and contextual independence of observations, and seeing no possibility other than linear causality of events and an axiological assumption of value freedom.

It is these problems associated with positivism that provide the foundation for Lincoln and

Guba's alternative, naturalistic paradigm. At the time their book was written, the idea of postpositivist and interpretive paradigms would have been quite novel, and acted as a challenge to a very entrenched way of seeing and studying the world around us. Lincoln and Guba argue for a type of paradigm shift, one that replaces positivistic inquiry and its associated problems with a more enlightened naturalistic one that takes us into the postpositivistic world that rests on five axioms:

- 1. Ontology—the nature of reality. There are multiple constructed realities that should be studied holistically. Inquiry into these multiple realities will raise more questions than it answers while yielding understanding of each along the way.
- 2. Epistemology—the relationship of knower to known. The investigator and the phenomenon being investigated interact to influence one another, making the knower and the known inseparable.
- 3. Generalizability. Naturalistic inquiry produces an idiographic body of knowledge that describes the subject of study. Although this may produce "working hypotheses" about the subject of study, these are not nomothetic in nature and do not form universal truth claims independent of time and context.
- 4. *Causal linkages*. Subjects of study are in a state of mutual simultaneous shaping, making it impossible to distinguish causes from effects.
- 5. Axiology—the role of values in inquiry.

 Naturalistic inquiry is inherently value-bound and is therefore a fundamentally subjective process.

From these axioms, Lincoln and Guba devise a set of methodological guidelines for conducting research. Rather than laying out a specific set of techniques, they present characteristics of research that adheres to the five axioms described above:

- *Natural setting*. Because realities cannot be understood in isolation from their context, naturalistic inquiry should always occur in context. This approach would preclude experimental studies that attempt to isolate certain variables, and recognizes that the very act of observation or study influences what is seen.
- *Human instrument*. People are the primary data-gathering instrument because there is no

- logical way for the complexities of observation to be understood in any other way. Only a human instrument (compared to, for example, a survey) can evaluate the interaction of the subject and its context, and understand the biases that result from the value-driven nature of research.
- *Utilization of tacit knowledge*. Intuition and feeling supplement propositional knowledge, that which is based in language form. This allows for the interpretation of multiple realities and the interaction between researcher and subject that occurs during the process of investigation.
- Qualitative methods. Although quantitative methods are sometimes used, qualitative methods are better able to deal with multiple realities and deal with the relationship between investigator and respondent.
- Purposive sampling. Rather than using random or representative sampling, subjects of inquiry are determined by purposive or theoretical sampling in order to increase the range of data collected, thereby increasing the chance of multiple realities being uncovered.
- *Inductive data analysis*. Rather than seek confirmation of hypothesized relationships, naturalistic inquiry uses inductive data analysis because it is better able to describe the research context fully and to assess transferability to other settings.
- Grounded theory. Substantive theory emerges
 from data in the way Barney Glaser and Anselm
 Strauss describe the development of grounded
 theory. This is based on the belief that no a
 priori theory can adequately explain the multiple
 realities likely to be encountered.
- Emergent design. Research should emerge rather than result from a predetermined design. This logic is based on the belief that not enough could be known ahead of time about the many multiple realities of a phenomenon to devise a rigid research design.
- Negotiated outcomes. Because research findings are a result of interaction between a researcher and a subject, findings should be viewed as negotiated meanings and interpretations with the human sources under study. Naturalistic inquiry is concerned first and foremost with understanding the construction of reality from the perspective of the participant.

- Case studies. A detailed case study report is likely the output of naturalistic inquiry because it is ideally suited to describing multiple realities and explaining the interaction between researcher and subject.
- *Idiographic representation*. Data analysis is best described as an interpretation of the particulars of the case studied rather than law-like rules generalizable to large populations.
- *Tentative application*. Generalizable truth claims are impossible to make following a naturalistic approach, so researchers are tentative in their claims to broad application of their findings. This is a result of the interaction between the researcher and respondent, as well as the peculiarities of the case(s) under study.
- Focus-determined boundaries. Researchers need to set tight boundaries based on the emergent focus of the study. This reinforces the notion that the research site itself, rather than inquirer preconceptions, determines the process and content of naturalistic inquiry.
- Criteria for trustworthiness. Conventional trustworthiness criteria are inconsistent with the axioms of naturalistic inquiry; rather, the qualities of credibility, transferability, dependability, and conformability are sought.

Application

A well-known application of naturalistic inquiry is Russell Belk, John Sherry, and Melanie Wallendorf's study of a swap meet. Essentially the same as flea markets, these are sites where used goods are bought and sold, representing a research site where small-scale buying and selling in second-order marketing systems can be understood. Their study attempts to develop an ethnography of one particular swap meet, both to be descriptive of the site studied and to serve as a pilot study of the methods to be used in studying swap meets on a larger scale. As recommended by Lincoln and Guba, they used multiple methods (interviewing, photography, video recording, participant observation) to collect a rich set of data in situ, employed a purposive sampling design, and adhered to several of the guidelines for establishing trustworthiness (member checks and audits). Their findings draw attention to the many benefits associated with postpositivistic/qualitative research, and hope to stimulate naturalistic research in buyer/seller activities as a result.

Summary

Although Lincoln and Guba present a rather extreme position in terms of the usefulness of naturalistic inquiry and the limitations of positivistic research, their thinking has been influential in terms of addressing the issue of "quality" in qualitative research. They do so using understandable terminology and a logic that is reasonable to those unfamiliar with the paradigm, or perhaps even suspicious of qualitative research. Even if naturalism in its purest sense is unattainable, the case study researcher can take many aspects of naturalistic inquiry in terms of its paradigmatic assumptions or methodological suggestions and apply them to a wide range of studies. It is for this reason that the techniques of naturalistic inquiry are widely used in many types of qualitative research.

David Wicks

See also Ethnography; Grounded Theory; Naturalistic Context; Postpositivism

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NATURAL SCIENCE MODEL

The natural science model is a schematic view of the pattern of advances in natural science. Experimentation and hypothesis testing, skepticism, empiricism, the *scientific method* as a whole, constitute the central elements of this model. Many scholars in the social sciences accept the natural science model so conceived as a model for all inquiry.

Conceptual Overview and Discussion

The natural science model has had a beneficial impact on the development of knowledge across the disciplines. With modern natural science comes the affirmation of empirical evidence and the scientific method, as well as challenge to unsupported assumptions about human nature, race, and the origins of the universe. The experimental method continues to provide new insights as to elementary particles in physics, brain functioning, and natural selection, among other disciplines.

Yet conceptions of natural science are themselves subject to debate. Scientific discovery is the fruit of a circuitous path of insight, conjecture, skepticism, and persuasion. The variety of modes of discovery in natural science is often misrepresented as a straightforward linear narrative of hypothesis testing and experimentation by rational thinkers. This view omits any consideration of the stubborn persistence of prevailing paradigms that Thomas Kuhn described in The Structure of Scientific Revolutions, or the roles of serendipity and metaphor in scientific investigations that Arthur Koestler describes in The Sleepwalkers. While hypotheses are indeed subjected to testing, as the idealized perspective mandates, investigators have derived their initial theories from religious inspiration, mathematical constructs, and hunches, as well as observation.

While enlightenment scientists identified universal natural laws with increasing confidence, recent developments in natural science have shaken deterministic thinking. The uncertainty quantum physics finds at the subatomic level combined with the surprising notion of local "singularities" where natural laws fail to apply, reinforce the more tentative spirit of pragmatist approaches and weaken deterministic models. On the other hand, some currents in social science remain trapped in outmoded conceptions of science. For example, the dogmatic core of neoclassical economics is founded on a confident accounting of economic law as derived from natural law. Many quarters in social science have followed neoclassical economics in this misappropriation of scientific certainties.

The controversies of scientific socialism as elaborated by Karl Marx, of social Darwinism as argued by Herbert Spencer, and sociobiology as defended by E. O. Wilson derive in part from the questionable extension of conceptions from natural science to the social sciences. In each case, dogmatism and distortion have weakened the argument. For example, Marx embraced the classical economists' confident assertions of natural laws. Herbert Spencer exaggerated the role of competition and denied the role of cooperation in natural selection so as to justify "survival of the fittest" as a law for society. E. O. Wilson found the answer in genetic determinism to myriad questions of human behavior despite enormous unexplained variance in culture and custom.

On the other hand, general systems theory, developed in the natural sciences by Ludwig von Bertalanffy and imported by Kenneth Boulding, Daniel Katz, and Robert Kahn and others into the social sciences, introduces pluralist conceptions of causality (equifinality) and admits of distinctions in the characteristics of systems in inanimate, organic, and human contexts. Thus it better accommodates the characteristics of human society, unlike social Darwinism and sociobiology. Boulding distinguished systems on eight levels of complexity and emphasized the care with which systems theory should be applied across disciplines and contexts. Despite flaws, systems theory suggests a nuanced vision of unity in the sciences.

Recent advances in cognitive science demonstrate an emerging model of inquiry that incorporates experimentation, case study, and speculation. Magnetic resonance imaging allows researchers to observe chemical reactions in the brain and to better understand processes involved in memory and other mental operations. Such experiments combined with clinical accounts of mental dysfunction and interventions by philosophers contribute to the development of models of human consciousness. The interdisciplinary character of cognitive science represents a recognition that the natural science model in its narrow form is inadequate to tackle conceptions like consciousness.

Application

Natural science methodologies are effectively applied to social science in a notable contribution to the economic literature, *The New Economics of*

the Minimum Wage by David Card and Alan B. Krueger. The authors compare case studies of minimum wage increases and treat them as natural experiments with which to test neoclassical expectations of job loss. This study subjects the scientific claims of neoclassical economics to realistic testing and finds no inexorable correlation between minimum wage hikes and layoffs.

Critical Summary

Natural science has implications for other fields of knowledge, but attention must be paid to the distinguishing characteristics of humans, animals, and things. Models from nature should be cautiously invoked in the context of human society. Natural and social science cannot be fully disentangled as humans exist simultaneously in a complex of natural and social worlds. Some anthropologists now speak of culture as the medium through which humans continue to evolve. It is the misuse of outdated theory from natural science or the mechanical extrapolation of models based on the behavior of atomic particles or animals to humans that contribute to misunderstanding.

David Carroll Jacobs

See also Equifinality; Philosophy of Science; Pragmatism; Scientific Method

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NEGOTIATED ORDER

The theory of negotiated order is based on the idea that social organization is constructed through everyday interactions among individuals within a changing structural environment. Agreements about social reality are achieved through negotiation among people to reach shared meanings. This negotiated order is dynamic and temporal in nature and, therefore, must be continuously renegotiated and adjusted.

Conceptual Overview and Discussion

Anselm Strauss based the negotiated-order approach on the philosophy of pragmatism, which views truth not as concrete but as arising from the practical consequences of a shared idea of truth. The theory suggests that every organization has a set of formal and informal rules. Individuals in the organization define the meanings of these rules through negotiations and then use the rules and the structural features of the organization to determine appropriate actions. Negotiation, in this sense, involves any way in which individuals reach agreements among themselves and with the organization. Negotiation can take many forms to include agreements with allies, special arrangements, passive resistance, contracts, and persuasion.

Negotiations have functional outcomes. These ongoing negotiations result in the development of social structures that must be continuously renegotiated and reconstructed. Human interaction with each other and with social structures—is the basis for social organization. People interact with other people and with the organization to produce formal rules and procedures and informal understandings and agreements. Formal rules and informal agreements both shape and are shaped by the other. According to this theory, formal rules and structures are not adequate to maintain the social order. Through negotiation, individuals in the organization develop a structure of tacit agreements and informal rules through which they interpret and decide which actions to undertake.

These shared understandings and rules are the bases for mutual action of the people in the organization or in society. According to the theory, the negotiated order in a unit or an organization, then, is the sum of both the formal rules and policies and the informal agreements and understandings. The greater society is built on a network of many negotiated orders.

Negotiations in an organization are not random, but are patterned. In case studies, patterns of how much negotiation, the kinds of negotiation that occur, and which individuals negotiate tend to emerge in predictable ways. These patterns vary with different organizational contexts and structures and in interactions between different individuals. Patterns are partially determined by the formal, fixed organizational structures. For instance, organizational status determines, in most organizations, who is able to negotiate with whom.

Negotiated order theory can be conceptualized as a critique of and alternative to the structuralfunctional or bureaucratic theories of organization that view organizations as unbending, inflexible systems. Instead, negotiated order theorists view the organization as being fluid, adaptable, dynamic, and constantly changing. The current order at any given point in time is fragile and subject to change. Negotiated order theory assumes organizational change is continuous and seeks to explain how social order is maintained in an ever-changing environment. Change in an organization causes renegotiation of the social order. Conflict in any form, such as change, leads to a disintegration of the social order. New meanings and rules are negotiated in response to this conflict. Organizational change is met with renegotiation of the shared meanings and new application of the formal and informal rules and agreements. Social order is maintained by the chain of continuously occurring conflict, which leads to renegotiation of rules and the reconstruction of shared meanings. The structure of the organization is a manifestation of this ongoing division and reconstruction of the social order.

The idea that order is negotiated by people rather than imposed on them has been related to the study of power and oppression. Power refers to the ability of some individuals to control interactions with and therefore the actions of others. The theory of negotiated order assumes that power is not an absolute held by some individuals and exerted on others. Rather, it is a product of a series of negotiations that develop into shared meanings. Power is contextual in nature in that it is part of

the negotiated order that must be continually reviewed and revised. Specific individuals may hold power at one point in time, but not at others due to a change in the social order. Oppression and marginalization of some individuals or groups are the result of the application of unequal distribution of power in the negotiated order.

Application

Because negotiated order is a microsociological theory that is concerned with the everyday social interactions of people in small groups, the theory of negotiated order provides a natural conceptual framework for case study research. In fact, the development of the theory is widely credited to Anselm Strauss's case study of two psychiatric hospitals. Many of the exemplary studies using the theory of negotiated order were case studies conducted in hospital settings. In practice, negotiated order theorists tend to rely on research methodologies that place them near the subjects. As a result, much of the work in this theory is a result of ethnography. Narrative analysis and observation are also favored research methods.

Strauss's research team undertook an ethnographic study of two psychiatric hospitals. This research suggested that the daily work of these hospitals was accomplished through negotiations. The formal rules and procedures of the hospital could never be encompassing enough to cover all the eventualities that the hospital staff faced. It was only through negotiation among people at different levels of status in the hospital that the division of labor was accomplished. Strauss's work also suggests that negotiations followed predictable patterns and that these negotiations determined the structure of the organization.

The principle of negotiated order is one of the central ideas on which the interpretive research tradition of symbolic interactionism is based. In fact, the two theories are often used interchangeably. Symbolic interactionism is based on the idea that, through interactions with others and with society as a whole, humans assign meanings to language, text, gestures, and other symbols. Human beings then act as a result of those personal meanings. The idea of negotiated order is central to symbolic interactionism in that it explains how social order is achieved through

negotiation of a shared meaning from these individual understandings.

David Silverman's action framework builds on the theory of negotiated order to contest the idea that organizations are closed systems. Instead, Silverman theorizes that organizational behavior is built on the interactions of people with each other and with the organization. He suggests that actors in an organization determine how they view themselves and others in an organization through interaction with the negotiated order. An individual's perception of himself or herself in the organization determines the person's actions in the organization.

Critical Summary

Negotiated order theory is a conceptual framework with which to undertake case study research from an interpretive perspective. Its microsociological nature lends itself well to the study of specific organizations and the people in them. However, this micro character of the theory is the basis of the major criticisms of negotiated order. The critiques of negotiated order theory have largely come from the theorists themselves. One such criticism is that the negotiated order approach fails to recognize that there are alternatives to negotiation (e.g., coercion and manipulation). As such, the approach fails to explicitly examine the role of such organizational issues as power and politics in organizations.

Researchers have also recognized that the theory of negotiated order has been used in very narrow contexts. Research using negotiated order theory in the 1960s and 1970s took place almost exclusively in the United States and primarily by students and faculty at the University of Chicago. Much of this research has been done in medical facilities, although a small body of research has studied organizations in other fields such as construction and technology. As such, it, perhaps, fails to recognize the greater contextual environment in which an organization exists. This criticism has led to recognition of the interaction of individuals with the greater society as part of a tradition of symbolic interactionism in research.

Donna Boone Parsons

See also Chicago School; Frame Analysis; Symbolic Interactionism

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NETWORK ANALYSIS

Network analysis evaluates the relations that link actors within a given boundary, both horizontally and vertically. The network consists of relations between individual actors. Each relation within the network consists of two parts: content and form. The content is considered the type of relationship (i.e., supervisor, subordinate, or colleague) and the form is the intensity (or primacy). The actors can vary from individuals, formal or informal groups, organizations, classes, communities, or nations. The boundary is defined by the conceptual framework of interest.

Conceptual Overview and Discussion

Unlike other techniques for evaluating social behavior, network analysis not only focuses on the traditional social behavior of individuals or agents, it also pays attention to the social relations that exist around the individuals or agents. Focusing on both the unit and the relationship to the network to which it belongs provides the researcher with a more comprehensive understanding of the situation.

One of the main contributions to network analysis as described by David Knoke in his 1982 monograph on network analysis, is that it provides the insight that actors participate within a social system with other actors, both affecting each other's decisions. Each actor or node has a variety of relations that can impact his or her behavior. It is the examination of these relations that allows

network analysis to provide a rich understanding of the system.

The second main contribution is that it considers the levels of structure within that social system. Both the horizontal and vertical relations within the boundary are considered. Karen Cook, in her work on network analysis, focuses on the role of power in vertical relations. The impact of the position held by the various actors has a tremendous impact on the overall network.

When analyzing a network, the individual actors are considered nodes. These nodes are modeled in relation to the other actors in the given boundary of the investigation. Discussing the relations between nodes requires two main considerations: the form and the content. The form of the relation refers to the connections between the two actors. The form looks at the intensity of the relation as well as the level of joint participation of the actors. The form can be of either a positive or a negative nature. Both types provide information about the intensity of the relationship. There has also been a lot of attention given in this area to the difference between what is considered strong and weak ties. The degree of intensity of the relations strongly influences the outcomes of those relations.

When looking at both the form and the content of relations within a network, the form of two separate relations can be similar even though the content of the relation may be different. An example may be that one person can have strong relations with both a coworker and a supervisor. The intensity of the two relations can be similar; however, the introduction of a power relation into the second tie changes the relation.

The relational content of the connection between nodes considers the type of relations that is present. The relational content of the nodes can be categorized into one of seven commonly used contents: transaction, communication, boundary penetration, instrumental, sentiment, authority/power, or kinship and descent. The transactional relation is one in which a physical exchange takes place, such as the sale of a product. The communication relations are the linkages through which information flows from one actor to another, such as reporting structures. Boundary penetration relations are those in which overlapping between systems may occur. An example may be if people do volunteer work with someone from their workplace. They are engaged in

two separate networks (the volunteer work and the organization). Instrumental relations are those in which people are looking to secure valuable resources from the other actor, such as a job or political advice. Sentiment relations are those in which actors express their feelings for one another. Each type of content has a different impact on the two actors as well as on the overall network.

The relations between actors or nodes can be positive, negative, or nonexistent in the analysis. There is value in looking within a network at not only those that are part of the network, but who in the environment is not part of the network and the reason for that absence.

When completing the analysis there are four levels from which a network can be studied: egocentric, dyad, triad, or complete network systems. At the egocentric level, the analysis is centered on each node. In Mark Granovetter's 1974 study on job information transmission, each node was analyzed to find the communication patterns within the organization. In this type of analysis the relations are broken down into zones that are connected directly to one of the nodes.

The next level of analysis is considered a dyad. This type of analysis looks at the relations between two nodes and how other relations, whether direct or indirect, impact the relation between the two nodes. Then the next level of analysis is the triad. This analysis takes into consideration the relations between three nodes. Finally, there is the complete network analysis. This looks at the relations within a complete system. The complete system analysis may consist of dyads within the system; however, the difference is the consideration for the involvement of the entire system.

Another consideration that needs to be brought into network analysis is the boundary of the network. This can be imposed either through the framework for the researcher's project, where the boundary framework is imposed upon the network; or by allowing for the actors or nodes to determine the boundary. This allows for the actors to provide the researcher with the limits to the relations researched.

Application

The first applications of network analysis in sociological research were through the works of John

Barnes (1954) and Elizabeth Bott (1971). Barnes looked at committees in a Norwegian Parish, and Bott focused on family social networks.

Mark Granovetter's work on job changers in 1974 looked at the relationship between weak ties and strong ties. This study found that people were more likely to be informed about new positions by weak ties than by strong ties. The information flow, then, is not always from the strong relations formed within the organization. These findings were counterintuitive to what one might expect, demonstrating the value of network analysis.

Research into a New York City hospital by Judith Blau in 1980, as cited in Granovetter's work, found that there were no cliques within the system of 200 people. The strong ties among actors formed sub-networks within the organization, however, and each of the 200 people was aware of the names of all the other employees. It was the weak ties throughout the organization that prevented the formation of cliques and allowed for overall better communication throughout the entire network.

The previous two examples of network analysis in organizational settings show how network analysis can help to inform the overall structure and communication patterns within an organization. Through an understanding of the relations between the actors, a better understanding of the processes within the organization is discovered.

Critical Summary

One of the two major criticisms of network analysis is the lack of attention given to power within the network. The influence of power is thought not to be apparent. As Karen Cook argues in her 1977 paper, "Exchange and Power in Networks of Interorganizational Relations", the absence of power is a criticism of only some works in the field, and the use of network analysis does not inherently exclude power relations—it is the researcher's approach to the analysis that determines whether power is highlighted.

The other criticism brought forward from Cook's work is the fact that network analysis is a microlevel analysis applied to a macrolevel phenomenon. The argument is that depending on the level of analysis chosen for the research, the appropriate application of either micro or macro exists:

egocentric versus complete network. At the complete network level, however, the intention of the network analysis is to inform the macrolevel through the evaluation of the microlevel.

K. Doreen MacAulay

See also Actor-Network Theory

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Nonparticipant Observation

Nonparticipant observation is a data collection method used extensively in case study research in which the researcher enters a social system to observe events, activities, and interactions with the aim of gaining a direct understanding of a phenomenon in its natural context. As a nonparticipant, the observer does not participate directly in the activities being observed.

Concept Overview and Discussion

Nonparticipant observation has a long history in the social and behavioral sciences. It is distinguished from participant observation by the observer's level and kind of involvement in the research setting, the nonparticipant observer adopting a more distant and separate role. At its most extreme, the nonparticipant observer has no contact whatsoever with the researched, but watches and records events through one-way mirrors or with cameras.

Nonparticipant observation may be overt or covert. When overt, participants understand that the observer is there for research purposes: The observer is present during organizational activities and has a role clearly distinct from that of organizational members. When observation is covert—either by hidden cameras or by an observer pretending not to be studying the setting—participants are unaware that they are being studied.

Because observation involves physically entering into the world of the researched, spending much time around them, and often being privy to quite sensitive issues, a critical first step is building trust and developing empathy with participants. This is especially important for those who at first might be wary of being researched. Developing strong relationships with participants not only increases the level of access that can be attained, but also deepens the insights gained into their world. At the same time, it holds the danger of the observer "going native," which happens when he or she overidentifies with those he or she studies.

The observation process is a three-stage funnel, according to James Spradley, beginning with descriptive observation, in which researchers carry out broad scope observation to get an overview of the setting, moving to focused observation, in which they start to pay attention to a narrower portion of the activities that most interest them, and then *selected observation*, in which they investigate relations among the elements they have selected as being of greatest interest. Observation should end when theoretical saturation is reached, which occurs when further observations begin to add little or nothing to researchers' understanding. This usually takes a period of days or months, but, depending on the phenomenon in question, sometimes several years.

Key to good nonparticipant observation is the taking of detailed field notes to record what has been observed. Researchers may also use audio or video recorders or cameras to capture activities in the setting, technologies that, as they become smaller and less expensive, are becoming more common in case study research. This way of capturing the raw data can be of great value, not only

securing incidents or exchanges that might have been missed or forgotten, but also allowing the researcher and others to revisit a faithful record of the data long after the field work is finished.

Application

While rarely used alone as a data collection technique, nonparticipant observation is often combined with other methods, such as interviews, document analysis, and surveys. As such, it has been an important part of several classic case studies. For example, in his study of how technologies change organizational and occupational structures, Stephen Barley spent one year as a nonparticipant observer in the radiology departments of two hospitals, observing the daily routines of radiologists and technologists. This allowed him to gain an intimate understanding of their actions and their underlying meanings that would have been hard to grasp without having an ongoing presence in the settings. Similarly, Karen Jehn used nonparticipant observation in her multiple case study of group conflict. By observing group members' behavioral reactions at different times throughout the workday, she was able to identify two different types of conflict, as well as evidence of a dynamic shift that occurred between them. Not only did nonparticipant observation allow her to study, in depth, a sensitive phenomenon that participants might have been reluctant to talk about in interviews, but it also provided a nuanced and dynamic appreciation of group conflict that would have been very difficult to identify through survey or other more distant methods.

Critical Summary

Nonparticipant observation has several strengths. First, it provides unique, contextualized insights into events and activities and the meanings that they hold for members of the setting. Second, it enables the researcher to capture the dynamics of participants' interactions with each another and with their work environment, and to do so over time, observing processes as they unfold. Third, it provides a different kind and quality of data than those gathered through self-report methods, such as surveys or interviews. Indeed, it may offer the only viable way to collect data on especially sensitive topics.

At the same time, nonparticipant observation raises several challenges. One is the observer effect, with its danger of causing reactivity in those under study. Although this effect usually diminishes over time during the observation period, it remains an inherent risk. Second is a concern about the observer's ability to be objective, and to produce an analysis of the setting that is not dominated by his or her values and interpretations. While, as in any study, researcher values and beliefs are an inherent part of the research process, observers can increase the trustworthiness of their data through the use of rigorous and systematic approaches to sampling, field notes, and data analysis. Third is the problem of selectivity: An observation can never be truly complete in the events, activities, people, or interactions studied, or in the time period covered. To address this issue, researchers observe the phenomenon in as wide a range of circumstances as possible, and spend a long time in the field. Fourth are ethical concerns about the greater authority accorded to the researcher's voice than to those of participants in describing and explaining what is going on in the setting. In recognition of this, researchers increasingly draw on both insider (participant) and outsider (researcher) accounts to develop a collaborative portrait of the phenomenon under study.

Feng Liu and Sally Maitlis

See also Going Native; Participant Observation; Theoretical Saturation

Further Readings

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NORTH AMERICAN CASE RESEARCH ASSOCIATION

The North American Case Research Association (NACRA) is a nonprofit, collaborative, voluntary professional association of approximately 500 researchers and postsecondary teachers, mostly in business and administrative disciplines. Members are from all over the world, teach at many types of colleges and universities, and offer expertise in various disciplines. The NACRA was founded in 1958 with the organizational mission to promote excellence in case research, writing, and teaching in business and other academic disciplines. Pragmatically, the emphasis continues to be on developing and distributing instructional case studies and their corresponding teaching notes to foster scholarly analyses of the cases. Cases used for instructional purposes are products of case study research. Case study research involves systematically investigating a single event or phenomenon, gathering data, analyzing data, and reporting the results in the form of a case. NACRA's intention is to encourage high-quality case research and to provide information for college and university instructors who want to use case method instruction in their classrooms. Case study and analysis is viewed as a teaching methodology that facilitates inductive learning and challenges and motivates students to engage actively. As such, NACRA contributes substantively to the body of knowledge about effective teaching practice as well as case research.

The case method of teaching (which was made famous by Harvard University) uses problems taken from real-life situations applied to a variety of fields and disciplines. The case method encourages students to focus on concrete cases to develop their intellectual capacity for diagnosing and formulating problems accurately, finding answers that offer the most complete solution to the problem in question, and working toward implementing these solutions by choosing the means and planning the activities.

As an international association of scholars, NACRA currently uses various strategies to realize its mission of promoting excellence in case research, writing, and teaching in six interrelated activities: (1) sponsoring an annual meeting for the presentation and improvement of new, peer-reviewed cases and papers on issues related to case pedagogy; (2) publishing a quarterly peer-reviewed journal; (3) promoting the worldwide distribution and use of NACRA cases; (4) providing professional development seminars and activities aimed at enhancing skills in case research, writing, and teaching; (5) working to enhance the legitimacy and status of case research and pedagogy within academic institutions and professional associations; and (6) supporting the work of NACRA-affiliated regional organizations and collaborating with other professional organizations having complementary objectives. Each of these organizational activities is briefly described below, followed by a list of resources and Web sites that can be used for further research.

Annual Meeting and Newsletter

NACRA sponsors an annual meeting for the presentation and improvement of new, peer-reviewed cases and papers on issues related to case pedagogy. The annual meeting focuses on helping case writers improve their cases in a constructive and interactive setting with the goal of helping authors develop their cases for publication in refereed journals such as NACRA's *Case Research Journal*, and in textbooks. In addition, the annual meeting enables members from many states and countries to gather and explore using cases as a teaching methodology.

To complement the annual meeting, the NACRA newsletter is published twice yearly to keep members informed about upcoming annual meetings, professional development opportunities, association activities, recent developments regarding the publication of cases, call for cases and papers, and operations of the board of directors and the editor. Current NACRA newsletters are available online at the Web site: http://nacra.net/nacra.

Case Research Journal

The Case Research Journal (CRJ) is a peer-reviewed journal published four times a year by the NACRA. The journal has been in publication since 1980. CRJ publishes field-research-based, decision-focused teaching cases drawn from research in real organizations, dealing with issues in all administration-related disciplines.

Cases may deal with any topic in any academic discipline where dynamic classroom discussion is useful. Cases must be original work based on real events, real people, and real organizations and cannot have been published previously in any journal or textbook. The CRI does not accept fictional works or cases synthesized from author experience. Field research is emphasized, but secondarysourced cases may be accepted in rare circumstances. Cases accepted for publication are decisionfocused cases that deal with issues important to a variety of disciplines. All cases must be accompanied by a comprehensive instructor's manual (further details about the criteria for cases and the corresponding teacher's manual are available at the NACRA Web site: http://nacra.net/nacra/index .php5). At least one author is required to be a member of the North American Case Research Association. A membership application is included as a last page of each journal issue.

Occasionally, *CRJ* publishes papers concerning case research, case writing, or case teaching. All manuscripts are double-blind refereed by Editorial Board members and ad hoc reviewers in the appropriate discipline.

Worldwide Distribution of NACRA Cases

NACRA promotes the worldwide distribution and use of NACRA cases in multiple media. In addition to the print publication of cases in the CRI, cases that have been published in the CRI can be purchased through the NACRA Web site links, or from XanEdu at www.xanedu.com. A large database of cases, those published in the CRI plus others that have been carefully vetted, is available and can be easily searched. Cases can be purchased in print or digital form. The right to reproduce a case in a commercially available textbook is reserved to NACRA and the authors, who share copyright for these purposes. All other rights, including the right to use the cases and instructor's manuals in databases, or printed or electronically produced casebooks, are reserved to NACRA alone. NACRA charges fees for these publication rights in order to fund its continuing faculty development programs.

In recent years, in an effort to sell more cases internationally, NACRA has begun publishing cases in languages other than English. Some recent cases have been published in French and Spanish to reflect the dominant languages of North America. In addition, some cases have been published in additional languages, such as Portuguese, to meet the needs of an author and a case situation. XanEdu makes current and past cases available in various languages.

Professional Development in Case Writing and Research

NACRA provides professional development seminars and activities aimed at enhancing skills in case research, writing, and teaching. Both the annual meetings and workshops organized periodically throughout the year help faculty and graduate students new to the case writing process. Special assistance is offered to help develop these new and emerging cases, which are commonly referred to as "embryo" cases. In addition, presentations and symposia are organized to focus on "teaching with cases" and "case research for theory building and testing."

Legitimating Case Research and Pedagogy

NACRA works to enhance the legitimacy and status of case research and pedagogy within academic institutions and professional associations. In recent years, NACRA has initiated giving two annual grants of approximately \$10,000 to support case research during the academic year. The funding categories include: (a) grants for using cases to build theory: these support research that utilizes case studies to generate new theories in business and administrative disciplines; (b) grants for teaching with cases research: these support research leading to a better understanding of the effectiveness of the case method of teaching; and (c) grants for teaching case development: these support the development of teaching cases based on field research and a comprehensive analysis (teacher's manual). The grant application deadline is usually in June. Grant recipients are expected to produce an article or case acceptable for publication in the CRI and to make a presentation at the next annual meeting.

Supporting NACRA-Affiliated Regional Organizations

NACRA supports the work of various affiliated regional organizations and collaborates with other professional organizations having complementary objectives. Support of these affiliates takes many forms and serves to extend the promotion of excellence in case research, writing, and teaching. Support may take the form of join ventures, publicizing each other's events, and sharing expertise. See the affiliated organizations and their respective Web sites in the Further Readings section below.

Some of these organizations publish their own journals as well as generate a number of cases. For instance, the *CRJ* is published online at www .caseweb.org by the CASE association, the eastern affiliate of NACRA, and the *Journal of Applied Case Research* is published at www.swcrahome .org by the Southwest Case Research Association. The *Southeastern Case Research Journal* is a hardcopy publication. The *Business Case Journal* is published by the Society for Case Research, the Midwest regional association. Together with the NACRA's own *CRJ*, these journals constitute a substantial collection of instructional case studies.

Patricia Rasmussen

See also Case Selection; Case Study as a Teaching Tool; Case Study Database; Organizational Culture; Pedagogy and Case Study

Further Readings

ASAC (Administrative Sciences Association of Canada)
Case Division: http://www.wlu.ca/sbe/cases/asac

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CASE Association (Eastern Case Writers): http://caseweb.org

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NACRA Web site: http://nacra.net/nacra

Society for Case Research & Annual Case Writer's Workshop: http://www.sfcr.org

Southeast Case Research Association (SECRA): http://www.secra.org

Southwest Case Research Association: http://www .swcrahome.org

University of California: http://www.soc.ucsb.edu/ projects/casemethod/teaching.html Wasserman, S. (1994). *Introduction to case method teaching: A guide to the galaxy*. New York: Teachers College Press.

Western Case Writers' Association: http://www.business .umt.edu/Faculty/shay/wca/default.htm World Association for Case Method Research &

Application: http://www.wacra.org

NUMBER OF CASES

The question, "How many cases?" is common in case study research. Because conducting a case study is costly, it is relevant to seek the minimum number of cases needed to obtain the desired quality of findings. Cases are key elements of the research design. Their number refers to the number of objects to be studied and may differ from the number of settings where cases are located, as well as from the number of interviewees who provide data about the cases.

Conceptual Overview and Discussion

Determining the number of cases depends on two major criteria: the research goal—whether to describe a phenomenon, to explain an outcome, or to test or to build a theory—and the features of the cases to be studied. Other considerations include techniques of analysis and epistemological perspectives.

Single-case designs can result from a constructivist epistemological perspective that considers any case as being idiosyncratic. In other perspectives, single-case designs are usually used because the chosen case displays intrinsic features that make it valuable to study. Robert Yin presents three such situations. The first one is uniqueness or rareness that makes the case intrinsically interesting to describe and analyze, such as the Challenger and Columbia space shuttle accidents. The second situation is the revelatory case that provides knowledge about phenomena previously inaccessible to the scientific community, such as William Foote Whyte's landmark research on the social structure of an Italian slum. The third situation is the representative or typical case, such as Robert S. Lynd and Helen M. Lynd's study of "Middletown," the archetypal American city. Provided the typicality of the case is demonstrated, findings can be extended to all cases that the case studied is representative of or typical for. In addition to the intrinsic value of a case, single-case designs are appropriate to disconfirm a theory or test alternative theories when a case is critical, that is, when it meets the conditions under which formulated propositions should be true.

Multiple-case designs can serve various purposes: exploration, testing, building theories, or explanations. Although each additional case can extend theory and increase the validity of claims, multiple case studies rarely go far beyond a dozen cases. The relative features of cases in terms of similarity and dissimilarity are more important than their intrinsic features because cases are instrumental in serving theoretical purposes. Two major criteria guide the selection of cases and their number: internal validity and generalization of findings. Internal validity is best favored by selecting contrasted cases because they allow for rejecting alternative explanations. Contrasted cases can be selected either on the outcome (e.g., success vs. failure) or on the studied causes (e.g., present vs. absent or high vs. low) since contrast in the studied causes is expected to lead to contrast in the outcome. A contrasted case, similar in any aspect to the first one except for cause X, creates a condition of invariant law that is enough for the internal validity of a causal claim of X on outcome Y. However, contrasted cases available for study are not always similar enough to the first one to reject all relevant alternative explanations. Generalization is obtained through replication of findings. Each case chosen for replication that includes dissimilarity on one dimension allows extending findings to this dimension, provided analyses confirm expected findings. In addition, it makes evidence more compelling and increases internal validity by showing consistency. Although each additional replication, including dissimilarity, increases generalization, a single case differing on several dimensions can be enough because the number of dissimilarities matters more than the number of cases. For instance, one replication in a context that differs according to four dimensions such as organization, governance, industry, and country provides roughly as much external validity as four cases differing on a single dimension. As a result, careful selection of cases allows reducing the number of cases required for desired internal and external validity down to three for a single claim: one contrasted case similar in all relevant features except for cause X, and one replication dissimilar in all relevant features except for X. Following the same rationale, additional claims require additional cases. Consequently, research aiming at building explanations for an outcome usually requires more cases than research aiming at theory building or testing. Finally, a complex relationship also requires more cases. For instance, a claim about a contingency instead of a simple effect requires having contrasts both on the contingency and on the main determinant, which leads to four contrasted cases instead of two for internal validity.

As for longitudinal cases, choosing their number relies on a different logic, depending on the research question and the existence of different periods within the case. Longitudinal cases can include two different periods including contrast (such as growth vs. decline, or before and after an event) or more, which can be analyzed as related subcases. Such a single longitudinal case including two contrasted periods provides as much internal validity as two contrasted cases. Although it increases a potential maturation threat—that is, a misattribution of cause due to time—it usually provides contexts that are closer to invariant law, allows testing reverse causality, and specifies how conditions change between the two periods. Such longitudinal case study constitutes an additional type of single-case design. When a longitudinal case design is not used for its quasiexperimental properties but rather for studying processes or sequences, three situations can be distinguished, each requiring more cases. First, when the goal is to identify activities and their associated purposes in a process, a single longitudinal case can be enough for internal validity, provided the longitudinal case includes several instances of each activity. Second, when the goal is to show that different processes can lead to the same outcome, a few cases can be enough provided they share very similar outcomes. Third, when the goal is to explain why processes or sequences differ, a higher number of cases is usually required. The rationale is similar to what has been previously presented for multiple-case studies. Because each different path has to be explained by a contingency or a set of contingencies, each additional path requires at least one contrast in terms of contingency to improve internal validity, plus a replication if one wants to increase external validity.

Configurational comparative method, also know as qualitative comparative analysis, or QCA, developed by Charles C. Ragin, involves a higher number of cases than traditional multiple-case designs. It typically uses a midsize sample ranging from 10 to 50 cases. QCA is a Boolean algebra technique used to identify the set of necessary and sufficient conditions for an outcome to occur, based on the systematic analysis of configurations. As in other multiple-case designs, the selection of cases involves contrast and replication. However, the purpose and technique imply differences in the nature and number of cases. First, QCA requires a high number of cases because the number of possible configurations increases exponentially with the number of conditions. For instance, 4 conditions lead to 16 (24) configurations. As a result, the number of cases required to produce robust results increases more than proportionally with the number of conditions. Using simulations, Axel Marx indicates that 12 cases are suited for 4 conditions and 45 for 8 conditions. This implies that, to contain the number of conditions, one should select cases within a homogenous theoretical population. Although there is no limitations on the number of cases that can be studied using QCA (some studies include more than 1,000 cases), the researcher's capacity to have a comprehensive understanding of a high number of cases makes an upper limit around 50. Symmetrically, although QCA holds for less than 10 cases, a small number of cases and possible configurations does not require Boolean algebra reduction techniques but a mere table.

Application

Although a reduced number of cases can be enough to provide validity of findings, such a strategy makes the selection process more demanding and the outcome riskier. Reducing the number of cases requires, first, relevant theoretical criteria that are usually clearer at the end of the research than at the time of case selection. Second, theoretically required cases can be difficult to find and may not even exist. Third, it can be risky because unexpected results from a case aiming at replication in a highly different context make the research inconclusive. As a result, reducing the number of cases is more appropriate for theory testing than theory building, and when cases are conducted one after the other rather than in parallel.

Quy Huy's inductive study of emotions management illustrates multiple-case designs. Comparing 10 cases in a single company, he found that emotional balancing involving high emotional commitment to change (Hec), and high attending to recipient's emotions (Hare) facilitates organizational adaptation. His 10 cases happened to exhibit the four contrasted configurations given by these two conditions (4 Lec/Lare, 1 Lec/Hare, 2 Hec/Lare, and 3 Hec/Hare). Having cases in each of the four configurations, and several replications varying in intensity of emotion and in recipients, provide high internal validity of findings.

The study by Christine Wiskin of businesswomen and financial management in the 18th century illustrates high validity of a single claim with a reduced number of cases. Using three cases of English businesswomen, she tested a theory of a "feminine" style of woman's credit transactions and showed an alternative explanation of success or failure of a woman's business relying on genderneutral competence in finance management. Her design included two contrasted cases in the manufacturing industry: Eleanor Coade, who was highly regarded for her up-to-date rather than "feminine" financial methods and who successfully ran her manufacture of artificial stone ornaments; and Jane Tait, an international dressmaker who went bankrupt because of her inability to collect outstanding debts. The third case, successful banker Charlotte Matthews, learned the trade from her husband and thus relied on nonfeminine financial skills. This case increases internal and external validity through the replication of findings in a different industry.

The study by George Westerman, F. Warren McFarlan, and Marco Iansiti illustrates research showing various paths leading to a similar outcome. They selected four paired case studies of ultimately successful adoption of e-commerce: two leading brokers, Charles Schwab and Merrill Lynch; and two similar large drug stores, CVS and Walgreens. They found no optimal path, but rather three viable adaptation modes, one of which was similar in both industries.

Vincent J. Roscigno and Randy Hodson's study of configurations enhancing worker resistance strategies illustrates multiple case studies using QCA. The authors built a sample of 82 ethnographies and analyzed six conditions related to organizational and social features that had previously been studied

separately. They used QCA to identify configurations and complemented their analyses with traditional quantitative methods. The pattern of associations across configurations for the different strategies highlighted three workplace types having unique implications for worker resistance strategies.

Critical Summary

The number of cases needed to provide strong validity of claims depends on the purpose of the research and features of each case. Whereas a single case is chosen because of its intrinsic features, multiple cases are chosen according to their features relative to one another. In multiple-case studies, careful theoretical selection of cases allows reducing their number without increasing validity threat. However, the relevance of required features increases with knowledge of theory. This implies that reducing the number of cases is easier for theory testing than for theory building, and for incremental sampling in which cases are undertaken one after the other rather than altogether at the same time.

Isabelle Royer

See also Multiple-Case Designs; Naturalistic Generalization

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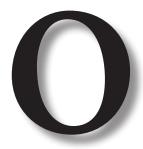
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OBJECTIVISM

Objectivism makes three principal claims: (1) an ontological claim that there is a reality "in itself," existing independently of the human mind, (2) an epistemological claim that this reality may be known by the human mind, and (3) a semantic claim that our language or discourse is connected with knowledge of reality in such a way that we may make literal and increasingly accurate descriptions and explanations. How one plans, executes, and interprets case study research will depend on one's response to the claims of objectivism.

Conceptual Overview and Discussion

Objectivism is a generalized way of thinking about the ideals, practices, and meanings of objectivity. It has no fixed definition as a standard for knowledge but continues to evolve and change. Stripped of its once-promising positivist foundation, the ideals of objectivism look different today than they did even a few decades ago, yet objectivism remains the cornerstone of the sciences and of scientific progress.

Some individuals view objectivism as knowledge itself, whereas others see in it the means and procedures through which we secure reliable knowledge. By and large, it is taken to be a property of correct understanding about the world. In addition to describing various views of knowledge and reality, objectivism is the standard characterization of specialized (trained) styles of investigation. It

describes norms and accepted boundaries of what counts as possible knowledge as well as the appropriate means by which we may achieve that knowledge, for example, how we must describe, construct, and validate empirical and theoretical claims. Whether one studies the movements of celestial bodies or the particularities of social networks, the distinction between what gets counted as genuine and reliable knowledge will most often be judged by whether it meets the standards of objectivism. Further claims and values associated with objectivism include the following:

- making a distinction between *knowledge* and *experience*;
- valuing only knowledge that is discovered, not constructed, for objective models and theories must match phenomena as they are and not merely our experiences of them (meaning resides in objects to which our knowledge corresponds or mirrors);
- gaining clearer access to reality through controlled observations and reproducible experiences made possible by the use of unique, value-neutral, and universal methods, techniques, procedures, and the representation of reality through unchanging laws and principles;
- controlling experience in such a way that we may collect data unobstructed by our biases and prejudices and make fair and neutral assessments;
- the standardizing and sharing of knowledge, thereby making it understandable, testable by others, and allowing for accurate judgment

- between competing knowledge claims (e.g., facts, theories); and
- achieving progress through the accumulation of increasingly complete and accurate descriptions of reality.

Objectivism and Foundationalism

The conceptual roots of objectivism may be traced back to the philosophy of Parmenides, who described the highest form of knowledge (and being and existence) as unchanging and objective truth, separated from the perceived world of mere appearance, change, corruption, and becoming. The view that accidental and contingent truth is fundamentally different than essential and necessary truth proved to be very significant for Plato, whose appeal to the absolute and unchanging as ideals for knowledge sparked over two millennia of controversy concerning what is real and true.

Also, as Plato so vividly demonstrated, the challenge of finding "the real" for objectivism lies in locating certain, universal, and necessarily true knowledge (as opposed to probable, particular, and contingent knowledge). In this way objectivism has become virtually synonymous with epistemological foundationalism, which relies on a secure basis (model, cause, origin, principle, etc.) that serves as an absolute and irreducible starting point for all understanding. Thus, genuine knowledge becomes a justified or warranted true belief by virtue of its relationship with a given foundation. Whether one is an objectivist or a foundationalist there is, at least in principle, an ahistorical and nonsocial starting point for certain knowledge. Historically informed or socially contingent knowledge may be helpful to a certain degree, but these cannot serve as solid grounds for the most reliable knowledge. The knowledge individuals accept on a routine basis is often only likely the case or probably certain. In addition, such knowledge is typically accepted as true because of other tentative beliefs or truths, and those by still other beliefs, ad infinitum. A serious problem arises when such beliefs are subjected to scrutiny and testing, for they must often be changed, modified, or discarded. How, then, might we generate a reliable body of knowledge that does not change or suffer an infinite regress of tentative beliefs justifying other beliefs?

For objectivists we must have at least some selfjustifying knowledge that is not wholly justified by anything else. Only then may we confidently judge all other knowledge claims without relying on induced or inferred premises. Such fundamental, or basic, beliefs have traditionally taken the form of intuitively obvious, innate, or self-evidently rational and/or empirical knowledge claims. The objectivism of modern science has most often been empirically fact oriented, for the permanency of knowledge is secured (through changing methods) in immutable (value-free) facts about the world. This securing of knowledge is most visible in the reliance on reproducible experiences, controllable observations, and the dual characterization of knowledge in terms of mechanism and materialism.

Application

Objectivism requires a distinction between our ideas and what they are about. To be objective is possible only by first dividing the world into subjects and objects and then by focusing attention on only those potential phenomena of study that are reducible to being studied as objects in universal and value-free ways. As subjects we understand and interact with the world of objects every day, but this does not mean we understand it clearly. To do so, for objectivists, we must begin by recognizing that the conscious mind and the world are mutually exclusive. We may then actively purge influences that cloud our perceptions and lead to errors and misunderstandings. The application of objectivism is first and foremost a matter of generating freedom from subjectivism.

Objectivism represents an attempt to get behind individuality (experience) to universality (knowledge). It is not enough to let observations and evidence speak directly for themselves; we must create a space in which the truth may be received without interference. Each of us is conditioned by our circumstances, individual histories, and biased perspectives. In our ordinary lives we are limited to variable and contingent ways of seeing and interpreting the world through our prior experiences and understandings that give rise to more or less private experiences of what things mean in our sociohistorical contexts. Objectivism considers such firsthand conditioning to undermine, impede, and limit the apprehension of universal, necessary, and certain truth. To

attain scientific knowledge, both the conscious mind and the world need to become objects free of subjective influence. As systemized indifference, disinterestedness, and detachment, objectivism is said to surpass the instability of subjectivity by eradicating both the self and the self's situated self-understanding. Purged of our inhibiting subjectivities, interpretations, and wills (desires, hopes, anticipations, etc.), our minds are better able to mirror reality without distortions. Thus, the goal of every scientific investigator must be to become a dispassionate observer who is open in such a way that phenomena may be seen as they truly are in themselves.

There are a number of common techniques for securing the objective structure of understanding and communication. Eliminating personal and social distortion is often achieved through implementing models of theory formulation and testing, value-neutral and universal methods, and standardized forms of measurement. Knowledge claims are typically justified through developing specific conceptual frameworks and then demonstrating how various data derived from experiments, observations, random sampling, double-blind trials, triangulation, and so on, may or may not properly fit within those structures. By virtue of theory development and testing we are engaged in a self-forgetting that allows us to see correctly. In this way, theory formation is a matter not only of trying to accurately describe the structure of reality but also of trying to control our experiences. Theories are said to be objective to the extent that they are correct and objectifying to the extent that the hypotheticodeductive model excludes our subjectivities.

Problems of Objectivism

In moral-political spheres, objectivism is often described as liberation from self-interest and gain. In the natural sciences, objectivism is embodied in mechanisms and methods meant to isolate and overcome the self to know things as they are—before interpretation. In case study research, it is less clear what role objectivism does or should play. In fact, objectivism in the strong form described earlier has been routinely questioned for its applicability to case study research, because there are a number of persistent problems facing any attempt "to see things as they really are." Four of these problems are (1) the fallibility of knowledge, (2) the

social character of knowledge, (3) the theory-ladenness of observation, and (4) truncated progress.

Fallibility of Knowledge

We may never be sure whether we possess facts of a mind-independent reality or whether we see things in themselves. The interplay between data (evidence and observation) and theory is continuous. Even when all the evidence supports a given theory or knowledge claim, further data may reveal it to be in error, especially when we consider that social systems are not closed systems. Although a theory may work and offer us ways of controlling, predicting, or reliably describing phenomena, this does not secure its truth. Karl Popper famously argued that we must seek not to verify theories but to falsify them. Because scientific claims are always open to dispute, the best we may hope for are theories that survive testing and that offer an approximation of objectivity. However, if we accept that our knowledge is always underdetermined this does not mean the world is unknowable, only that we should focus our efforts on attaining plausible, approximate, and credible accounts, not absolute and final representations.

Social Character of Knowledge

We do not observe the world in an unmediated fashion or know it in discrete isolation; we rely on our prior knowledge and experience to make sense of things. For example, even in merely recording data in the most objective manner possible we are relying on a language and conceptual framework rooted in our own social and historical backgrounds. Case study research is itself an inherently social activity, and its knowledge is gained by virtue of personal choices and decisions (e.g., in theory development, hypothesis formulation, data selection, question choice, etc.), and these rely on evaluations and judgments that reflect both scientific and social values. However, the claim for the social character of knowledge is not one for radical relativism or arbitrary subjectivism; instead, it means only that the ideal of an absolute presuppositionless beginning and a perspectival approach to knowledge is insufficient.

Theory-Ladenness of Observation

Closely associated with the previous point, the *theory-ladenness* (or *dependence*) of observation

refers to the presence of bias or interpretive backgrounds for all observations. Observations are not neutral disclosures of reality that confirm or negate a theory but are always determined in part by the theories we use to describe how we think things are in the world. Our very perception of things is influenced by the theory in which they are studied and understood. In a more innocuous sense, our theoretical preconceptions may influence our perceptions by merely conditioning how an otherwise-objective observation is described. More controversially, they may actually be inseparable from our observations and thereby negate the potential of objective and neutral evidence (theoryfree facts and observations) and objective decision making between competing theories. In a broader sense, all our "objective" methods and procedures may be said to rely on tacit, assumed, and locally (socially) accepted means-to-truth, not only to justify their use but also to make sense of what we see when we use them. Many scholars have suggested that a better and more suitably broadened objectivism might consider observation to be more like the practice of interpretation guided by theory rather than a direct correspondence or mirroring of reality in itself.

Truncated Progress

Objectivism is central to the notion of progress as cumulative scientific development. The more we are able to secure objective facts, themselves products of objective methods and techniques, the more we are said to know the world. Thus, as we grow in knowledge about the world, older theories and models are adapted, refined, and modified to better represent the world. In this way science is described as a history of taking one step after another on the way toward universal, certain, and necessary truth. However, the picture of objectivism as part of the ongoing linear disclosure of reality appears to be historically inaccurate. Whereas objectivists tend to see the perpetual activity of theory revision and adaptation as achieving progressive and more accurate correspondence with new evidence and data about the world, many sociologists, historians, and philosophers see it as evidence that the real world is continually escaping an objective disclosure. The history of objectivism is not just of gradually earned breakthroughs that add to former

knowledge but also of local achievements and revolutions that overturn previously accepted knowledge. This history of objective progress is radically complicated when we realize that many once widely accepted, tested, and applied theories and knowledge claims have been shown to be false. Such disclosures are not further steps up the ladder of progress but often new starts.

Critical Summary

Objectivism for case study research challenges us to reconsider what counts as reliable, accurate, and true forms of knowledge. To make sense the potential application of objectivism we must broaden both our concepts and our practices in regard to case study research. Although case studies may not be neutral explications of social reality in itself, or claim to be objective in an absolute sense, this does not mean that the ideals of objectivism have no place in case study research or that they are merely subjective and relativistic. Researchers must aim for attainable goals, such as being rigorous, explicit, thorough, and accurate, while remaining open to revision and adaptive to real-life contexts. For researchers the goal is not absolute and final representation (universal, necessary, and true knowledge) but plausible, approximate, and credible accounts. Moreover, objectivism in case study research does not happen on the basis of researchers' absolute absence of bias, interest, or preconceptions, but through their careful efforts to recognize and overcome inhibiting biases to the best of their abilities.

Jason C. Robinson

See also Credibility; Hermeneutics; Objectivity; Postpositivism; Pragmatism; Subjectivism

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OBJECTIVITY

In case study research both the investigator and the findings are considered *objective* if they are unbiased; without preconceived answers; and describe the way things really are in the empirical case at hand, regardless of human emotions, wants, values, ideology, or similar perceptual distortions.

This entry sketches what a researcher ought to do about objectivity when proposing, conducting, writing, and defending a case study. The issue is unavoidably complex and controversial. It is a central scientific ideal, yet manifestly impossible to achieve. The entry elaborates on what *objectivity* means, outlines why it matters, summarizes key views of its limits, and introduces practical implications.

What and Why

Most contemporary thinkers regard objectivity as impossible to achieve, at least in the traditional sense of positivist science, as stated in this entry's opening paragraph.

In principle, all objective observers, using the same scientific procedures, would reach the same conclusions. Within limits of available observational technology, the conclusions would be true in an empirical sense, where *empirical* indicates knowledge obtained through logical processing of sensory encounters with natural reality. Objectivity is contrasted to *subjectivity*, the realm of the individual mind or the shared world of culture, which interprets the world through wishes and preconceived frameworks.

A common confusion between subjectivity as research *object* and as *method* must be clarified immediately. The former is legitimate to all schools of thought; the latter is deeply contentious. When a survey asks "Do you believe in the supernatural?," the object observed is a subjective phenomenon, but the method aims to map accurately the

substance of the respondent's orientation—and perhaps causes and consequences—with no interest in the truth value of the belief itself. Anthropologists clarify this by labeling respondents' claims (native point of view) as *emic* knowledge, compared with the *etic* scientific interpretation of the belief system by an analytical outsider.

Scientific method, the strategic embodiment of objectivity, is widely viewed as the most effective approach to knowing the world. Traditionally (in positivism), it was supposed to let us see how things really are, along with the causal chains behind them. With such knowledge we can manipulate controllable determinants to improve circumstances and let lie factors that are beyond our control; otherwise, we waste resources and worsen the circumstances.

Trouble starts first in trying to locate an ultimate basis for judging truth about the way things are and second in demonstrating that human objectivity is possible. Those are philosophical tasks of epistemology (the study of knowing), which offers a complex and contentious array of answers on which hinge the very nature of scientific truth and possibility of objectivity. Foundationalists believe in some kind of knowable and certain information or principles that provide final grounds for judging the truth of knowledge claims, whether the foundation lies in logical reasoning (rationalism) or in sensory tests of the material world (empiricism). Relativists, by contrast, deny the existence or knowability of such a foundation, arguing that all knowledge is necessarily shaped to historical and cultural frameworks available to people making the knowledge claims, so their truth value is relative to the worldview of the knowers. It likewise follows that even the scientific analyst acquires only such truth as her socially constructed cognition can fit together.

Perspectives

The very possibility of classical objectivity has been convincingly undermined by philosophers, but with no definitive successor. This section introduces key contenders in the framework wars.

Positivism

Positivism, the orthodox champion of objectivity, has lost considerable ground in the social

science community. Positivists believe that scientific methods will eventually reveal laws by which the natural (including human) world functions and that humanity can manage its affairs accordingly. A positivist takes literally the original sense of data as "things given." Challengers emphasize the original meaning of *fact* as "something made or done," implying that information is not raw and direct but rather produced, thus transformed, by human intervention.

Critical Marxism, Feminism, Queer Theory, Postcolonialism, and So On

Diverse critical perspectives, embodying visions of new egalitarian freedoms, all criticize and struggle against key features of existing social orders. They criticize positivist objectivity as an ideologically motivated illusion, a mechanism to inhibit insightful analysis and progressive action. Positivists' futile search for value-free science leads them to support the status quo, which privileges elites. Positivists, they add, also assume that human life rests on universal and unchangeable laws, whereas our social orders actually are historically and cross-culturally varying products of our own changeable human action.

Interpretivism and Social Constructionism

Interpretive-constructionist methodologists— "critical" or not-radically challenge the assumption that an "objective" strategy can access reality as it is in itself, independent of the observer. Instead, they claim that all knowledge, empirical or otherwise, is shaped by the psychological and cultural (and biological) sensitivities and limitations of observers. Thus, all knowledge is interpretation. Like critical approaches, constructionism stresses that patterns of human behavior and sociocultural systems are changeable products of people, not dictated by the law-like nature of things. Also, information about the world, including scientific information, is structured by communication among persons, who inescapably interpret events using what they already know and believe. It is illusory to think that empirical observation works directly upon our brains instead of being revamped by those already-trained brains. Thus, how can we judge the truth value of scientific knowledge? One fallback is intersubjectivity:

"Truth" is provisional, resting on the current consensus (if one exists) among debaters who are expert and dedicated to the best attainable understanding.

Postpositivism

Postpositivism (the best-known exponent of which is Karl Popper) accepts basic criticisms from interpretivists while salvaging the surviving tools of empiricism. In practice, postpositivism and interpretivism overlap extensively, but the latter typically adopts a more far-reaching relativism. Like interpretivists, postpositivists acknowledge the unity of subject and object, the notion that anything we know about an object is produced only by an interplay between what is given by the object and what is *done to* the perception by the interpreter's viewpoint. Consequently, they accept a modest relativism: that there is no single absolute (knowable) truth about any object of social inquiry, only provisional truths filtered through changeable cultural frameworks. Researchers emphasize the possibility only of disconfirming empirical claims, of never finally proving them true, because alternative untested accounts always remain possible. Ideally, then, researchers must strive to prove themselves wrong. The two criteria of provisional (never absolute) truth are (1) failure to discredit one's account after rigorous empirical testing and (2) failure of fellow scientists to challenge successfully their findings or methods. Again as with interpretivists, the truth value of empirically derived interpretations rests on outcomes of systematic and intelligent debate, among sincerely motivated experts, weighing allevidence at hand. Postpositivists are further defined by commitment to research designs that embody the most convincing available logical tests of explanations for phenomena and by adopting data-producing techniques that minimize errors. All this should produce our best approximation to the elusive goal of objectivity.

Postmodernism

Postmodernism is radically relativist, disillusioned even with postpositivist and critical visionary approaches to understanding and action. Rejecting any general models of history or society or knowledge (metanarratives), and any version of foundationalism, postmodernist researchers adopt

the language and practices of literature more than of science and see objectivity as dead and buried, good riddance.

Implications for Practice

Better textbooks on empirical procedures (even interpretivist ones) in most fields of social inquiry typically advocate moderate postpositivist formulas. Although it is not inherent in the respective approaches, quantitative discussions often lean toward the spirit of positivism, whereas qualitative practitioners tend to think more interpretively. It is important to note, however, that many textbooks very wrongly use the words quantitative and empirical (implying an objectivity orientation) interchangeably, while equating qualitative with subjective. In actuality, both quantitative and qualitative approaches engage in scientifically systematic reality testing and hence operate empirically in their methods. Likewise, whether the descriptions of the research objects are expressed in numbers or in words, the objects themselves may be either subjective or physical entities.

Whatever the individual researcher's circumstances, the objectivity question virtually always must be addressed according to the communicative requirements of the adjudicators. The criteria for successful social research come back to this point: researchers should use principles, practices, words, and arguments that they can successfully defend in the face of critique, which is the effective standard of truth value in all circles of scientific discourse.

John Estano deRoche and Constance deRoche

See also Constructivism; Credibility; Epistemology; Interpretivism; Phenomenology; Postmodernism; Postpositivism; Researcher as Research Tool; Scientific Method; Subjectivism; Validity

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ONE-DIMENSIONAL CULTURE

One-dimensional culture refers to a concept developed by Herbert Marcuse, which was first articulated in his 1964 book One-Dimensional Man: Studies in the Ideology of Advanced Industrial Society. One-dimensional is a critical concept used to denote the state of affairs in advanced industrial society. It refers to the suppression of underlying societal contradictions and antagonisms through consensual language, thought, and behavior. One-dimensional culture both manifests this and helps perpetuate such a state of affairs.

Conceptual Overview and Discussion

The concept of one-dimensional culture needs to be understood in its social and historical context. It emerged in an attempt to comprehend advanced industrial society. The basis for the concept lies in the scientific and technological developments that enabled a higher standard of living. The developments in the natural sciences in the 17th century and the ensuing Enlightenment, with its celebration of reason against myth and tradition, reinforced the idea of human beings being in control of nature and thus their own fate. The industrialism that followed the technological developments enabled mass production of the necessities of life. However, in the context of Western capitalism many other commodities also were mass produced. This lay the ground for today's consumer culture, the signs of which were already identified by thinkers in the early 20th century, particularly advocates of critical theory.

Marcuse uses the term *one-dimensional* to describe a number of different things: thought, behavior, society, civilization, philosophy, language, culture, man. It refers to a state of affairs characterized by consensus and unity, where no tensions, contradictions, or antagonisms present themselves and, if they do, they are reduced to insignificance.

Instead, domains of life such as culture, commerce, science, religion, and politics all seem to coexist harmoniously. The concept of one-dimensional thus refers to a conflation of potentially contradictory spheres into one congenial unity.

Marcuse was one of the central thinkers of critical theory as developed and practiced by a number of scholars connected to the Institute of Social Research in Frankfurt, often referred to as the *Frankfurt School*. His thinking connects to a long line of critical thinkers of society and builds in particular on the work of Georg Wilhelm Friedrich Hegel and Karl Marx. Although the thinkers of the institute work with a wide variety of social issues, there are a few topics of interest that many of them share. Among these are the nature of reason, domination, and the need for dialectical thinking, all of which are important for understanding the concept of one-dimensional culture.

Marcuse criticizes contemporary society for presenting itself as rational despite its irrationalities. These irrationalities present themselves in a comparison of the actual and possible consequences of the Enlightenment legacy. In contemporary terms, despite the massive technological advancements in society the world is still ridden by poverty and hunger for a majority of people due to unequal distribution of wealth and well-being. The advent of mass production potentially enabled a solution to this problem. Furthermore, as a consequence of excessive mass production, today the world is facing monumental environmental degradation that is eroding the very preconditions of life. Contemporary reason would thus seem far from reasonable.

One element helping to uphold this irrationality is one-dimensional culture. Marcuse criticizes it for the subtle but permeating domination that it entails. This domination is linked to material abundance and illusory freedom. Society today provides such an infinite range of commodities to choose from in order to satisfy any wants or needs that additional alternatives seem unnecessary. The overwhelming assortment of potential acquisitions distracts from the larger questions of whether these are the commodities individuals want to be choosing between, whether they actually want and need what they think they do, and whether these masses of commodities lead human beings to freedom or happiness. In this context freedom is

replaced with freedom of choice, but only from within the range provided. There is no space to question the provision of the range itself.

One-dimensional culture, therefore, refers to a situation in which individuals no longer recognize any need for change in the current state of affairs. The possibility of satisfying various needs through either cheap, mass-produced commodities or expensive luxury items, and the implied freedom that the availability of such a range of commodities entails, posits acceptance of the existing social organization and the institutions that enable the abundance and purported freedom. The comforts available in such a system discourage engagement with potential contradictions in the system and deter demands for change. One-dimensional culture thus inhibits critical thought. It curbs questioning of the rationality of the foundations of the system or consideration of alternatives and instead finds all solutions within the system itself.

Marcuse's critique of one-dimensional culture reflects Theodor Adorno and Max Horkheimer's earlier work on the culture industry in Dialectic of Enlightenment. In an analysis of the manifestations and implications of mass-produced culture, Adorno and Horkheimer criticize culture for having become subservient to the existing social and economic system. Marcuse perceives a liberating, oppositional potential in culture, which has disappeared from its one-dimensional form. Instead, mass culture has become an instrument of cohesion, questioning and threatening nothing and no one. As one-dimensional, culture has become domesticated. Contemporary blockbuster films and pop music in general are perfect examples of contemporary expressions of culture as harmless entertainment. They come in a prepackaged form, and they reaffirm the expectations of the viewer or listener or challenge them only in insignificant ways. They function to strengthen the acceptance of capitalist relations rather than to question the premises.

Against one-dimensional culture Marcuse emphasizes the need for dialectical thinking. The contradictions of reality will not disappear by turning a blind eye. Critique of one-dimensional culture is critique of consensual jargon about a contradictory reality and of a conflation of spheres that nullifies the critical potential for change in the existing moment. What is needed instead is a critical

questioning of the current state of affairs and its foundations and a consideration of alternatives. This requires dialectical thinking.

Application

The concept of one-dimensional culture can help elucidate the state of affairs at a particular point in time in a particular social context. Today, it is especially important for a critical understanding of contemporary capitalism, and consumerism in particular. It is a useful concept for analysis of the organization of society, and it is inherently linked to a critical engagement with manifestations of contemporary society.

One-dimensional culture is a useful concept for linguistic analyses of various materials, from marketing and advertising materials, corporate publications and statements, to political speeches and jargons of contemporary phenomena such as corporate social responsibility. Margaret Thatcher's "there is no alternative" and Francis Fukuyama's well-known "end of history" thesis are perfect expressions of one-dimensional culture. Analysis of functional and consensual language use and abbreviated language and images benefits from the contextualization provided by the concept of one-dimensional culture.

One-dimensional culture is also an important concept for critical consumption research. Studies of commodification and subject-commodity relations benefit from engagement with the concept, as does any research into contemporary commercial utopias, such as theme parks and shopping malls, which have, as far as possible, eradicated any traces of opposition.

Despite the considerable attention that Marcuse's work initially attracted, it seems since to largely have fallen into oblivion, which is perhaps a sign of the deepening of a one-dimensional state of affairs. Although the concept "one-dimensional" is still evoked, there is not much research explicitly engaging with it. One attempt at a case study informed by Marcuse's critique of one-dimensional culture can be found in Paula Mathieu's analysis of the rhetoric of Starbucks Coffee Company. Mathieu points to the consensual language adopted by the company, which draws away attention from the underlying, more complex and contradictory reality in which the company functions. Emphasis

on experiences of connoisseurship and romanticized images of coffee production, spiced up with assertions of corporate social responsibility, encourage consumers to engage in pleasurable, guilt-free coffee consumption and deter them from further enquiries into the actual, existing relations of Starbucks' coffee production. Mathieu refuses to take the given frame for granted and instead advocates engagement with a broader social context enabling awareness of the important absence in the given rhetoric, as well as imagination and articulation of alternatives. Starbucks is an excellent example of one-dimensional culture, producing a homogenized world, where narratives of consensus hide the inequalities and struggles that lie behind and enable the business practices of the company.

From the point of view of critique of one-dimensional culture, however, much research conducted in the social sciences, case study research included, could be held partially accountable for the current one-dimensional state of affairs. Instead of engaging in a critical examination of current society and the rationality of its premises, much research remains on the level of description and interpretation from within the existing sociality, thus reproducing the same sociality. This might reflect the current status of social science as bound by the legacy of positivism, desperately clenching the ideal of value neutrality, incapable of grasping potentiality, and overestimating the extent to which individuals are aware of the conditions restraining their actions.

Critical Summary

The concept of one-dimensional culture is useful for understanding many contemporary contexts in which contradictions and antagonisms are hidden behind a facade of consensual language. It is useful for understanding the lack of resistance in contexts where it would seem justified and the persistence of the capitalist system and the deterioration of imagined alternatives despite the evident irrationalities of the present.

The concept of one-dimensional culture could, however, be criticized for disregarding actual, existing countermovements engaged in sustained critique of the present state of affairs and contemplation of alternatives. It does not account for the

various movements engaged in human rights or environmental issues, or movements such as the degrowth movement, the slow food movement, and various anti-consumerist movements, which all recognize the contradictions of the present and work toward solutions. The World Social Forum's insistence that "another world is possible" and engagements in efforts to change the current state of affairs might remain below the radar of a critique of one-dimensional culture.

The concept of one-dimensional culture is, however, valuable for its theoretical conceptualization of a fundamental propensity in the present. It is important for the attention it draws to how contradictions in the present are continuously being ignored. Despite its critical tone and the necessity of negation that the concept implies, one-dimensional culture is ultimately an affirmative concept, not of what is but of what could be.

Anna-Maria Murtola

See also Contextualization; Critical Theory; Modernity; Power

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ONTOLOGY

Simply put, *ontology* refers to the study of the true nature of existence. Ontology problematizes taken-for-granted assumptions about things seen and unseen.

Conceptual Overview and Discussion

Ontology is a problem for natural scientists interested in comprehending the true nature of things such as atoms and stars. It is also a concern of social scientists who want to use case study methods to study such concrete phenomena as music scenes, cults, or deviant small groups. What is a "scene"? What is a "cult"? It is common for people to think that their own worldview assumptions concerning what something is are correct. However, philosophy and social sciences such as anthropology teach us to be critical of our deeply held assumptions. If you travel to a distant place, you may be confronted with people who adhere to a different ontological view. At one time, everyone believed in witches, but now it is not clearly the case that stereotypical witches exist.

As a simple example, consider the existence of dogs. If you have been raised in North America, then your ontology may include the idea that the true nature of a dog is a family pet. Commonsense views of the reality of singular physical objects such as a dog (e.g., this specific English terrier named Ricky) are precisely what the philosophical specialization called *ontology* seeks to discover. In other places at other times, a dog might be thought of as food, or as a worker. What the true nature of something is depends on how one views that object. The singular representative of that object (e.g., Fido, the family pet) and a subclass of objects (cocker spaniels) may not fully represent the true ontological reality. Similarly, we tend to think of separate individual human beings as real and often believe, as did Margaret Thatcher, that words like society are simply metaphors. Some social scientists have made the ontological argument that societies are more real than persons, unless one is thinking of persons merely as biological entities. There are many things that we believe about ontology that seem absolutely correct, but we also tend to believe that "gravity" is real because most of us have a kind of grade school understanding of that theory, based on a simplification of Newtonian physics. However, the idea that a solid physical thing such as a rock is more real than an invisible "object" such as helium or oxygen does not get us very far in terms of the sciences, physical and social. Even in the life sciences it is not altogether clear what any species or subspecies of animal or plant really is, especially relative to other similar species. Think of the platypus and the dodo, or the peanut and the apple. It simply is not accurate to say that "a rose is a rose is a rose." Gertrude Stein meant the statement poetically, as in her statement concerning Oakland, California, that "there is no there there," but poetry is not necessarily science, even though there is much poetry in contemporary scientific thinking. Moreover, many people believe in the reality of things, such as the heartline in one's palm, that others doubt have any significance in reality. Things are frequently not what they seem on the basis of appearances. Strict nominalism holds that all our words are merely attempts at describing the indescribable, based on our limited awareness of the true nature of reality. Strict phenomenalism is not the basis for a true inductive science, or even grounded theory. Hence, there is very active research today in typology in fields such as entomology and geology. Both disciplines rely heavily on case study research but tend to reject interpretivism. We should therefore not be surprised that social sciences also still struggle with the precise nature of a "society" or a "culture." Which nation-states represent true cases of societies? Do the Kurds comprise a nation? How different is Russia from the USSR? All empirically based sciences concerning "nature" and "the human" struggle with ontological question. Such intellectual struggles can be quite heuristic.

Application

Ontic Reality?

The basic question is: "What is ontic?"; that is, what is really real? Cotemporary physical science continues to struggle with the question in terms of the alleged reality of objects such as "strange particles," for example, leptons, mesons, kaons, baryons, and hyperons. Newtonian ideas are no longer accepted, and post-Einsteinian subatomic particle physics challenges the imagination. In any interpretive case study there are many assumptions made about the reality of the object of investigation. Even the assumption that we can make a distinction between the object and the researcher as subject is an ontological belief, one that is largely implicit. Social scientists often do not attempt to question such basic ideas as the existence of the human individual person or the reality

of a community; however, the idea of all human beings having individual identities is only about 400 years old. Before the modern era, it was widely believed that a clear-cut distinction could be made between civilized citizens and "barbarians." Remnants of that belief continue in the current idea that an enemy is somehow less than human. The study of ontology is closely related to metaphysics, and some authors use the terms interchangeably. However, others make a clear distinction between pre-Enlightenment metaphysics and post-Enlightenment ontology. Moreover, postmodernist theorists like Jacques Derrida have added further wrinkles and subtle nuances through their deconstruction of Ancient Greek philosophical terms and Germanlanguage translations of such terms by thinkers such as Immanuel Kant and G. W. F. Hegel. Like so many philosophical terms, the word ontology comes from various Ancient Greek and Macedonian dialects. In that way it is similar to words we use to designate concepts such as psychology, biology, epistemology, and phenomena. Christianity, Judaism, and science all utilize translations of Greek terms like ontology. Western European philosophy is firmly rooted in Ancient Greek explorations of fundamental questions. However, many researchers shy away from the word ontology altogether. Moreover, the word has undergone significant changes in meaning over time. One major factor in such changes has to do with modifications of religious perspectives concerning the sacred. Metaphysical ideas that the Ancients tended to share are largely ignored today, even by most theologians. There is no detailed and systematic study of the historical development of the shifts in the idea of ontology, but a great part of Hegel's philosophy was devoted to attempting to comprehend precisely what the nature of reality is. He posited a dialectical reality, one that continually shifts over time as human beings discover more and more about the universe. However, as soon as we approach research in a systematic way we are forced to ask basic ontological questions concerning our object of study. Is the subject matter that is the focus of the case study something that really exists? Do we perhaps even reshape the object of study simply by studying it? One reason for conducting case study research, in particular case studies of single cases, is the conviction that such cases reflect the reality of a situation or process. However, thinkers disagree what is

really "real"; hence, the question of ontology is an implicit part of the decision to carry out case study research rather than other types of research. It is assumed that studying a case will bring more valid and reliable knowledge than studying many cases. Some researchers make the problem more explicit and discuss ontology, citing philosophical speculations about reality. Ontology is the philosophical study of the reality or nature of existence or "being"; for example, to what extent can we consider a biological person to have a personality? To what extent is a community or an organization a real thing rather than a useful fiction?

Ontology or Metaphysics?

Some thinkers regard ontology as an aspect of metaphysics and theology, and others believe that ontology replaces metaphysics entirely. Kant, inspired in part by his opposition to Swedenborg's metaphysical speculations, argued that metaphysical notions cannot be known with scientific certainty. Edmund Husserl accepted Kant's distinction between spiritual (nominal) and natural (phenomenal) aspects of reality and developed a phenomenological approach. The phenomenological orientation in philosophy helped to inspire Alfred Schutz's phenomenological sociology and Garfinkel's ethnomethodology.

Thick Description

Clifford Geertz assumes that the best way to conduct anthropological field work is to study concrete cases in terms of very detailed description of real events. His famous essay on the Balinese cockfight is a good example of what he calls thick description. A thick description is multilayered and examines a case in terms of all of the phenomenal aspects apparent to the senses. It is a blow-byblow account, similar to a descriptive passage in a novel by J. B. Priestly. We "make sense" of the case by elucidating all of the sights, sounds, and smells. If, for example, we live in Fiji and discover the way in which men there treat women, we do not necessarily do so all at once. We only begin to discover what is "really" going on in terms of gender relations as we attempt to exercise familiar non-Fijian gender roles learned in relatively industrialized countries, such as Canada.

What If?

Case study research also depends on the study of counterfactuals. For example, in history it is frequently useful to what would have happened if a key event had not followed the familiar pattern. What if George Washington had been shot during a battle? What if the United States had not won the Battle of Midway during World War II? The study of counterfactuals helps to isolate key features of a historical situation and promotes a keen awareness of the reality of specific decisions and outcomes. Moreover, because we cannot conduct rigorous experiments by redoing the past we are provided with thought experiments (*Gedankenexperimenten*) that help focus on key factors in outcomes.

Postmodernism

The postmodernist approach emphasizes the idea that phenomena do not have an essential and rigid structure but are social constructions. The ontological reality of any social or psychological pattern is reinvented daily, and even hourly, through human communication. Symbolic interaction and economic exchange continually shape the systemic features of any social organizational unity, large or small. For example, the notion of a "nation," which is so important to the even more abstract idea of a "nation-state," is reinvented continually by all those who are regarded as citizens of that nation-state. Although England can be regarded as a nation in the 21st century, it is actually part of the nation-state called the United Kingdom. A citizen of the United Kingdom may be Scottish, or Irish, or may have been born outside of the United Kingdom altogether. Postmodernist thinkers emphasize antifoundationalist views and stress ongoing social and cultural construction, especially through language.

Critical Summary

Case study research is based on an ontological assumption about the importance of studying a "case." The ontological status of a case should always be considered carefully in the formulation of the theory and methodology. In order for a student to fully grasp what is involved in the choice of a case study approach rather than a more positivist approach it pays to think through the ontological

status of the phenomenon investigated. If the study is not intended to transcend all considerations of time and place, then focusing on a case study will frequently be heuristic.

J. I. (Hans) Bakker

See also Epistemology; Interpretivism; Phenomenology; Theory, Role of

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Ordinary Troubles

In everyday life, the social interactions of individuals are frequently disturbed by unexpected occurrences. These occurrences are outside of the expected of what normally fits within a specific social situation. Erving Goffman has developed the concept of *ordinary troubles* as a part of his *frame analysis*—the analysis of the specific arrangements of individual involvements in social interactions. The frame is the context in which social activities are constituted and assigned a specific meaning; it is an interpretation that allows the individual to categorize and to understand a situation and its sense. People try to integrate each situation into what they have already experienced

in similar situations. This happens unconsciously, until troubles take place.

These troubles occur in everyday life situations. Ordinary troubles are not caused by conscious activities and not with the aim to generate a false impression of what goes on; instead, ordinary troubles are grounded in mistakes and preclude somebody from doing something in a direct way. Because they differ from intended and fraudulent fabrications, Goffman conceptualized these kinds of troubles as ordinary. They arise from reasons such as ambiguity or framing errors.

Conceptual Overview and Discussion

Ambiguity

Ambiguity emerges when participants of social interactions are, for a lesser or a longer time, in doubt about what is going on and about how they should define the situation. Therefore, an unambiguousness perplexity occurs for them. As a consequence, feelings of insecurity arise, and activities are undertaken only with hesitation. Often, ambiguity has to be cleared up by a specialist who can identify its reasons, for example, if an abrupt turnoff of the lights is caused by a power breakdown. Ambiguity has two forms: (1) what can happen in general (vagueness) and (2) which one of a number of definable possibilities happens (uncertainty). For instance, if abrupt silence occurs during a telephone conversation, the reason for it is vague for the caller; it could be that the reception is technically disturbed, that the phone partner is offended by something, that he or she has may have suffered a sudden heart attack or perhaps has accidentally hung up. However, such a situation and its ambiguity have to be cleared immediately, and the reason for the silence has to be discovered. This is because each of these possibilities requires different behaviors of the caller to meet the situation.

With transformations of the frame, when the proposed frame does not fit with the common activities, ambiguity occurs. Ambiguities can take place in what Goffman has conceptualized as *keying* (e.g., if it is dubious whether one hears the right phone ring or just a ring in the television) and in fabrications (e.g., a common skepticism about the real intentions of one's activities). Skepticism can occur with regard to the possibility that something is caused by a harmless prank. Such a suspicion

can often be based on accidental events. Skepticism also can occur when biographic reasoned events, such as former encounters with a nodding acquaintance are forgotten, but the forgotten acquaintance welcomes one by one's personal name.

Framing Errors

In contrast to ambiguities, Erving Goffman discussed framing errors as caused in nonmanipulated but inaccurate understanding on the configuration of current occurrences. This leads to behaviors executed on the basis of false evaluations of the situation that are the result of systematic framing errors. These errors are based on failures to correctly interpret the frame. Goffman differentiated four types of framing errors depending on their relation to the frame. First, errors can occur with reference to the primary framework by unconscious activities fitting within the expected frame. Here, activities that are based on a misinterpretation of the frame lead to a dissonance between the activities and the frame. Second, errors can happen during the process of keying. Keying is the process by which activities, which are meaningful in a primary framework, are transformed into something patterned for this activity but are seen by the participants as something different. For example, if one unwittingly wanders into a location where a film (i.e., motion picture) is being shot, then one might perceive the performance as reality, and this misperception can lead one to engage in strange activities that fit within the assumed reality but not outside the film location. Third, errors can take place with regard to biographic identification, like the confusion in identity recognition. Fourth, framing errors happen in different channels of the frame. For example, this can take place in the channel of articulation, when one speaks while thinking the microphone is turned off and the audience hears something that was not intended to be heard.

Consequences

Numerous quarrels can occur as consequences of ambiguities and framing errors. For example, if several opinions about the definition of the situation are rather distinct, quarrels can arise. Also, a controversy might evolve as a consequence of falsities that arise even in good faith. Framing

errors can lead the person who made the mistake to apologize and to try to explain the error. This explanation can be controversial as well. Explaining the situation of a framing error can lead to mistrust about the explanation. If doubts arise about what is going on, or about whether a framing error can be identified, then it is critical to clear up the frame. A correct interpretation of the situation is usually soon established. One can accomplish this by evaluating further information.

Application

Ordinary troubles can have an impact on case study research. It is essential that the observer of social settings is aware that these troubles can happen by surprise. Accordingly, the analysis can be protected from false interpretations that can take place when rarely occurring ordinary troubles are assessed as common situations. However, if one discovers that ordinary troubles are occurring, then the researcher has the chance to analyze how persons are responding to the changed situation. This can give some unique insights into social groups, which can be gained by analyzing the specific way they deal with troubles.

Critical Summary

Ordinary troubles are not intended but rather occur by ambiguity, based on some doubts about what is going on, and by framing errors, based on false evaluations of a situation. In the research process, the analysis of unique responses to troubles can be used to gain some special information about social groups.

Lars Meier

See also Frame Analysis; Self-Presentation

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Organizational Culture

Organizational culture can be taken to mean the work-related worldviews (assumptions, understandings, beliefs, values, etc.) and life ways (norms and practices) that are purportedly shared by members of a bureaucratic institution. Such bodies—also known as *formal organizations*—are deliberately designed; have explicitly defined goals, roles, and subdivisions; use standardized procedures; and are oriented to universalism and rationality. They are hierarchical in terms of authority and in function, with differentiated subunits being incorporated into more inclusive, higher order ones.

Formal organizations are typical of the private, public, and nonprofit sectors. The first of these has received most attention in the organizational culture literature, so much so that the term *corporate culture*—more appropriate to the world of business—has been used as a synonym for the broader category. This conflation of labels is not surprising, because the notion of organizational culture initially became popular in the early 1980s among management specialists, especially those like Terrence Deal and Allan Kennedy or Thomas Peters and Robert Waterman, who were writing to offer pragmatic advice to a nonacademic audience of corporate managers.

The case study approach is near and dear to management researchers, and formal organizations—as clearly bounded and well defined social bodies—are quite suited to it. The field of management studies is also an applied one, and organizational culture promised to serve as a new key to productivity and profitability. At a different point on the disciplinary spectrum, the anthropology of industrial and industrializing societies was continuing to grow. Large-scale societies (globalizing nation-states) needed to be carved to fit anthropology's in-depth, qualitative approach. Plants and offices became some of the suitable new venues for research. The notion of organizational culture inevitably attracted anthropologists' attention; in North America, culture has been the central, integrating concept of the discipline since its late 19thcentury inception.

The culture concept, and the model of humanity on which it rests, has generated controversy in the organizational culture literature. Central to the discourse are issues about how a single, collective mind set could govern so complex a social structure and about whether management can deliberately create, inculcate, and maintain it.

Conceptual Overview and Discussion

The organizational culture literature can be divided into overlapping categories. Mats Alvesson and Per Olof Berg, for example, have acknowledged three of these in the field of management studies. Listed in the order of their entry into the field, they include (1) nonacademic consultants and popular writers (beginning circa 1982), (2) applied academicians (who joined in very shortly thereafter), and (3) purists (i.e., basic academic researchers, who started contributing in the late 1980s). For convenience, we can call the first two, whose works are quite similar, *pragmatists*; basic researchers have more in common with organizational anthropologists.

The pragmatists' orientation is instrumental. The point of studying organizational culture is to manage it. Organizational culture functions here as capital, a resource to be invested in improving the productive capacity of labor for the sake of increased profit. It is meant to replace older, supposedly less effective methods of governing human resources. Purportedly, once workers internalize proper cultural standards, they need fewer formal guidelines; they can make decisions more flexibly, as exigencies demand; and they become self-supervising (or self-exploitative, given that commitment to the firm is to be prioritized over all other role requirements). Indeed, organizational culture is seen as capable of putting the power of human nature to the service of the firm. Pragmatists argue that organizations are rational instruments, whereas humans are not, and that organizational culture can bring the irrational (cultural values, desires, and motivations) under rational control.

Attentive reading of pragmatist work reveals that the prime targets for enculturation are middle and lower managers. Lower-level employees receive little attention, perhaps because their more routinized tasks have been easier to control; that is, enculturation seems to be the white-collar functional equivalent of the Taylorization of productive workers or clerical staff. Purists have observed that

the pragmatic literature is essentially management-centric: It conflates organizational culture with the value set of managers—more specifically, senior ones—and the normative structure that benefits them. The pragmatic literature hails the founders and CEOs of successful firms, and it advises those in the top echelons at other firms about how to create an effective organizational culture and inscribe it upon their subordinates. This means producing a "strong" culture, one upon which there is consensus and commitment. In short, organizational culture is meant to be hegemonic, as is further revealed by discussions of variation.

Organizations are inherently differentiated in structural-functional terms (in divisions and departments), by occupational diversity, and as a result of mergers and acquisition. The pragmatic literature acknowledges consequent subcultures. Subcultural variation typically is seen as a threat; subcultures can be tolerated only so long as they are integrated into the firm's culture, at a high level. Discussions of counterculture are especially telling. Counterculture is distinctive in that it is confrontational; it is counterauthorative. It challenges the company culture, which is to say that of senior management. Under some circumstances deviants can be tolerated, but only when, in the context of a strong culture, they produce innovations that benefit the firm. Others must be reeducated or dismissed.

Purists from management, and especially anthropologists of various stripes, see culture very differently. They find the pragmatists' conception of it as outmoded, particularly insofar as it is essentializes and reifies and because it rests upon a naive view of human nature. They reject the notion of culture as a specific collection of traditional ideas or habits of mind that, once internalized, appropriates consciousness and holds the reins of action. They regard the pragmatists' understanding as resting upon what, in the 1960s, sociologist Denis Wrong described as the "oversocialized view" of humanity. Although purists continue to see culture as a social construction that is historically transmitted, they recognize that it is more than a product of past creativity that directs cognition, affect, and action. For current basic researchers culture is understood as a multifaceted resource, replete with ambiguities and contradictions, that is subject to human agency; that is, people actively interpret

and manipulate those received categories and shared meanings that we call *culture*, and they do so, in significant measure, with reference to interests that are rooted in status (i.e., position in a social system). Humans are, moreover, value rational; they can strategize to meet goals that are framed by values and desires.

To pragmatists, culture can be deliberately created. There are three underlying assumptions here. First, people are passive, a position that strikes critics as unrealistic. Pragmatists advise CEOs about effective means of inducing subordinates to buy into the product. Second, only some people are rational. Founders and other top executives are exceptional in that they can rationally direct irrational subordinates by manipulating devices such as symbols (e.g., certificates of merit) and stories that valorize culture creators (e.g., founders) and conformists ("heroes").

Third, people are essentially uncreative; thus, culture is typically inert. The significance of lore and other symbolic devices cannot be denied, but critics argue that culture is a natural, emergent property of lived experience. It is not subject to authoritative control but instead will inevitably morph into varieties that reflect quotidian realities at multiple vantage points. In other words, purists suggest that social differentiation (a hallmark of complex organizations) results in divergent interests that are not readily eradicated to suit even the most powerful. This realization has led some purists to develop a differentiation approach, acknowledging-without ranking-cultures in organizations. In effect, purists from the field of management have rediscovered what organizational sociologists have known since at least the time of the Hawthorne studies (1930s): In practice, an informal order arises within the formal parameters. In brief, organizational culture can be construed as a hegemonic project but, as many scholars have argued, hegemony is more realistically seen as a contested process than an achieved condition.

Critical Summary

Formal organizations are pivotal institutions in contemporary society. They mediate important political, economic, and other social processes. It behooves us to understand them, and the case study method can offer us a close-up view of how

they operate "on the ground," that is, how they actually work on a day-to-day level. Notably, though, those who look to the pragmatic literature will notice its hortatory tendency. Here, case materials are used—anecdotally rather than systematically—to underwrite broad generalizations on which advice is based. For instance, case examples are salted throughout Deal and Kennedy's (1982) seminal work. Those seeking a model for systematic, holistic, in-depth case study research would do well to search the purist literature, which includes Gideon Kunda's (1992) ethnography of a West coast high-tech firm.

As the discourse on organizational culture has taught us, portrayals of organizational culture require an appreciation of structural and incumbent cultural complexity. The debate suggests that we need a dynamic, practice-based model of culture that rests on a recognition of human agency. Perhaps, rather than speaking of organizational culture, qua the culture *of* an organization, we should examine culture (much of which is generated elsewhere) as it is put to work *in* organizations.

Constance deRoche

See also Managerialism; Naturalistic Context; Overdetermination; Phenomenology; Power

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OTHERING

Othering in the context of research is the term used to communicate instances of perpetuating prejudice, discrimination, and injustice either through deliberate or ignorant means. Othering is most obvious where researchers, their paradigms and processes, and their reports have objectified or exotified a person, group, or community. Othering in case study research usually portrays a particular case or set of cases in an essentialized or overly simplistic manner. This highly stereotyped characterization ignores similarities among cases and holds difference as contributing to problems, in a blaming manner. The term othering is an important concept that reveals and labels a negative process and outcome of research. As such, the term depicts something to be avoided in ethical research.

Broadly speaking, the term *othering* is understood as an undesirable objectification of another person or group. In these social processes, othering is a process of stigmatization that defines another in a negative manner. This comparison of the other is often made in the service of one's own positive alterior identity. Othering is always accompanied with essentialist assumptions about the other that are typically unexamined from a critical analytical standpoint.

Conceptual Overview and Discussion

The concept of otherness holds difference at its core. Hegel's *Phenomenology of Spirit* established the source of othering as part of our struggle for identity. Psychoanalytic scholars have grounded the distinction between the self and other as central to the establishment of a coherent sense of "me" and "not me." The other is defined against the self, or vice versa, and knowing the other contributes to our bounded sense of self. In these traditions the other is theorized to be a necessary part of the human psyche, and the creation of the other is a profoundly human process of existence.

The term othering emerged from the postmodern era, most prominently in social science research theorizing a postcolonial era. Within critical race theory postcolonial analyses examined this tendency to create the "other." Postcolonial analyses have deepened the understanding of how being an other causes fractures along sociopolitical structural lines. These fault lines are not equally balanced in power dynamics. Othering is a structurally based process that underscores the privilege of the dominant group. Power circulates within the structures in ways that enable the dominant group to define what "other" is. As such, othering is part of a colonizing process that is all encompassing. It is a dominant group's assertion of what is different in a way that negates the value of that difference. The dualism or the binary is set up in a totalizing manner that creates hierarchy as in civilized-uncivilized, developed-undeveloped, human-not human.

Defining the other is the project of colonizing praxis; therefore, it is not surprising that postcolonial theorizing should raise questions of representation. The debates about representation seemed to suggest that othering could not be completely avoided. It did not matter how carefully a researcher or research team might eschew any practices that would give rise to othering; there was always the power dynamic of the sociohistorical era circulating within the research that later generations would see as essentialist. There was also the notion that audience interpretations could use the knowledge in ways that the researcher or research team never intended. The avoidance of othering seemed daunting to the point of questioning the research enterprise and representational aspects of any research. The debates illustrated how othering was recognized as deeply problematic.

Questions of how to avoid this process and outcome rendered heated discussions within the social sciences. Depending upon the researcher's philosophical standpoint, their analysis of othering and what can or can not be done about it varies. Within postmodern dialogue othering is embedded within the research enterprise. Researchers with more positivist orientations assert the paradigmatic power of the scientific method to negate the impacts of othering.

How can ethical inquiry be accomplished if othering is in fact part and parcel of the research process? Postmodern theorists have argued for a

reflexive approach to research instead of ceasing research altogether. The reflexive approach exposes the ways that the researcher and the research team are implicated in the research process and reporting. In reflecting about how research is itself a social process with a culture of practice and in making these practices more transparent, audiences can see into the strengths and the weaknesses of the research. Audiences can at least have the possibility of identifying how and where othering may be operating with the project. Ethical inquiry is possible where and when researchers think about, challenge, and expose their assumptions.

Ethical projects illustrate how researchers have worked against the othering process. Better research illustrates the research process in ways that open it to scrutiny and alternative interpretations. Connected to this turn to reflexivity is the concept that all research is someone's partial account of what is going on. Humility should be built into the research process and reporting. When room is created for alternative views, then othering and its effects can be minimized.

Othering is usually identified by someone who does not share the same worldview as the researcher. For example, it is relatively easy for people of our historic period to look at research reports from a century ago and see the obvious othering that occurred. There is little doubt that future researchers will look at the work of our contemporaries who invest strong analytical skills into avoiding othering and still be able to point to processes or reports that reveal othering.

A critical analysis of the research is needed to reveal othering or the potential for it. The critical analysis can be undertaken by the researcher, by the participants, by the audience, and by peer review. However, astute researchers should not rely solely on their own reflexivity to show their assumptions, because it is difficult to know what we take for granted. Researchers can build a scrutineering function into their project by ensuring diversity in the composition of their research team.

Avoidance of othering requires a consciousness of the inherent differential of power in the research process. The research process typically has a researcher or team of researchers embark on a project about which little is known. This is a setup ripe for othering. The relatively privileged group explores the unknown terrain of the other. The

researcher or team of researchers will systematically design an approach to collect empirical materials about their case study person or community. These empirical materials will be analyzed and interpreted to produce an account of the case. This account will then be communicated in particular selected formats to particular audiences. At every phase, the prospect of othering is at play. Power to design, implement, interpret, and communicate is part of the research process. The research team comes from a place of relative power. That power may be further entrenched through social categories that define identity politics. To the extent that the case under scrutiny is part of a disenfranchised group, the risk of othering is further exacerbated.

Consciousness of othering is created through the researcher's reflexive process. First and foremost, reflexivity is based on the researcher's capacity for openness to the concern of othering. Where researchers are not open to considering that othering is a possibility, no consciousness is possible. The next layers of consciousness are an ongoing attitude and praxis that build a process of questioning, inviting challenge, and learning about how one's assumptions influence the project.

Safeguards against othering should be built into research projects, and they can involve several strategies. The most obvious starting place for avoiding othering is the commitment to do so by making it a focal discussion item within the research team and ensuring an accountability within the project to this goal. The researcher or research team should prepare to enter their project well in advance and interrogate their own standpoints and identity politics. Another useful strategy is to invite members of the case study to participate in the project. If this is not possible from the outset, then invitations could occur as soon as possible. Clearly, earlier collaboration or partnership would be preferable to later involvement, because the former holds the possibility of early identification of potential problems of othering. Researchers can also look to ways that past research with cases similar to theirs have been carried out and reported. The scrutiny of the literature can include a critical appraisal of how that work both undermines and promotes othering.

The inclusion of community members as part of the research team is a strong praxis against othering. The collaborative approach requires an

authentic engagement whereby equity in participation is not assumed but is a procedural ethic with clear guidelines. These guidelines might include clarity regarding how to engage and sustain reciprocity with the community throughout the project. The project procedures should avoid tokenism, where gestures of participation are merely that and do not carry structural importance within the case study project itself. Structural importance is indicated through tangible resourcing for participation. The resourcing is done in regard to identifying potential barriers to full participation and removing them where possible. A strong praxis of authentic participation ensures a critical mass of representation from the community and helps distribute power in the research team. It also involves an attitude of collaborative inquiry whereby everyone around the table is perceived as having something to contribute to the team as well as something to learn from others.

Othering tends to be most prevalent against populations that have historically been systematically discriminated against or targeted by dominant culture for enslavement, indenture, assimilation, or exclusion. The result of othering for these populations has been that research conducted on them has been further used to justify racist or eugenicist policies. Othering is so prevalently used against some communities that the community members refuse to allow researchers to conduct their projects without explicit partnership and collaboration with their community. For example, in Canada, Aboriginal populations require all research on reserves to have partnerships in place before any research can take place. The major funding agencies in Canada have an Aboriginal ethics policy that places collaboration as a signpost of ethical research.

Application

Research by its nature asserts the authority of the researcher to name things that Haraway describes as a "god trick." Paradigms of inquiry structure the rights and obligations that such researcher power entails. With this power comes ethical responsibility for disrupting problematic forms of the research enterprise. One of the problems that has been identified is that of othering. In the context of case study research, othering can occur at several

junctures, and ethical care must be taken to address it to the fullest extent possible. The junctures include the framing of the inquiry and research question; the designing of the approach; the analytical inductive assessment and interpretation of the empirical materials; and, finally, the knowledge exchange formats for the research findings.

Othering can occur at the level of the research question and the horizon for the inquiry. For whom is the research being undertaken, and for what purpose? How can the community be engaged to judge the catalytic resonance of the question? What are the underlying assumptions of the research question? In answering the underlying motivations for the inquiry the researcher or research team members can open their minds to the ways that othering might be furthered by their work. In conscientiously disrupting othering in the initial phases of a research project, the groundwork is established to continue to work in ways that decenter the research's colonizing tendencies.

The next phase of the research, designing the approach to answer the question, is another opportunity to interrogate the otherizing tendencies of the research. What will be used as the basis for the inquiry? What form will the empirical materials take? How shall the procedures for the project work against othering? Every aspect of the project implementation holds assumptions about what counts as information and how it can be collected. Every decision to include something or someone also has underlying assumptions about what or who not to include. The team needs to decide inclusion and exclusion criteria as explicitly as possible and articulate why certain empirical materials count and others do not. The resources for the project are limited. The team needs to be explicit about how those resources are used and why. Excavating these paradigmatic principles enables the research team to expose the assumptions that can be most problematic in promoting othering.

Analytical phases of the project are the next sites for potential othering praxis. As in previous phases, one must as what assumptions are being employed. How does the analysis build alternative explorations of the empirical materials into the process? For example, on one of my research teams we took turns with the skeptic role, which was structured into the analytical process. The skeptical questioner role was to raise questions

about the interpretation by adopting an active stance against the emerging findings and pointing out contradictions to the inductive interpretations that were forming. The team members had to engage with the skepticism in order to illustrate how the emerging interpretation was a better fit for the data. Thus, conscientious fault-finding was built into the analyses as an integral part of the inductive phase. By including dissent in the analytical structure for the project, the research team has the potential to circumvent othering.

The dissemination phase of the research is the final layer in which to be vigilant about othering. The researcher or research team decides on key audiences for the findings at the outset of the project, with additional audiences becoming relevant as the project unfolds. Regardless of the audience, at a minimum the reports about the project need to include a reflexive piece about how the research project was created. This reflexivity would also include a transparent reporting of the analytical process and how the interpretations were garnered from the empirical materials. For example, a particularly rich account of analytical processes is provided in Melanie Mauthner's work on sisters. If the researcher opens the project to transparent scrutiny and illustrates that multiple interpretations were possible but that this one was used for this purpose, the audience can read a polyvocal multilayered interpretation even when the authors have asserted that a particular stalk of knowledge as more relevant than other interpretations. Allowing the audience inside the rough edges of the project enables knowledge exchange that can work against dominant otherizing tendencies. These rough edges fray at the binary that holds others in their place. On the other hand, dissemination holds the potential to further entrench colonial attitudes and praxis if it is conducted in an essentializing manner or format. Research teams have to account for their representation of the case to their audience in terms of not only content but also formats. They need to decide what counts as authentic representation of the case and what form that representation should involve to best foster knowledge exchange.

Critical Summary

Avoidance of othering requires focused attention and care in the research design, process, and reporting.

Specific strategies to address othering should be built into the project. This becomes imperative for research projects working with vulnerable, disempowered, or racialized populations. Although researchers may intend their case studies to be used to promote equality, and for their research to engage political and structural power dynamics, they must also acknowledge that their contribution to the flow of knowledge will always be partial. Also, in terms of dissemination of the findings, knowledge exchange that counters existing hegemony is a dialectical process. Control over how the research is interpreted by the dominant culture and used is somewhat circumscribed by this dialectic. Because of this, a genuine collaborative partnership with the population of interest will become crucial to understanding the impacts of research and how best to promote knowledge exchange that creates social justice.

Colleen MacQuarrie

See also Audience; Colonialism; Constructivism; Imperialism; Intertextuality; Native Points of View; Poststructuralist Feminism

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OUTCOME-DRIVEN RESEARCH

Outcome-driven research starts with an observed and known outcome or result and works its way

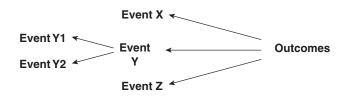


Figure I Outcome-driven explanations

Sources: Howard E. Aldrich (2001). Who wants to be an evolutionary theorist? Remarks on the Occasion of the Year 2000 OMT Distinguished Scholarly Career Award Presentation. Journal of Management Inquiry, 10(2), 115–127. Adapted from Elder, G. H., Jr., Caspi, A., & Burton, L. M. (1988). Adolescent transitions in development perspective: Sociological and historical insights. In M. R. Gunnar & A. Collins (Eds.), Minnesota Symposium on child psychology, 21 (pp. 151–179). Hillsdale, NJ: Erlbaum.

backward, building explanations from events or observations that have already occurred and are already known, using archival records, interviews, artifacts and traces as data sources to reconstruct a story.

Conceptual Overview and Discussion

Outcome-driven research is a retrospective accounting of the plausible reasons for a known outcome. This type of case study research is typically cross-sectional in design, selecting one point in time and attempting to identify and reconstruct what led to a particular outcome (see Figure 1). This is a non-evolutionary approach to case study research; most research endeavors take this approach and are primarily concerned with events that have occurred in the past, examining historical artifacts to develop possible explanations.

One of the limitations of theorizing by looking to the past is that elements of the topic of interest may not still exist at the time of the examination, thus limiting the variety, diversity, and heterogeneity of what is being studied. In the case of organizations, for example, only the ones that survive to produce the outcome of interest will be examined, and the ones that did not survive, or were transformed into something else, are not considered, although there is potentially much to be learned from their contribution and historical significance. Left truncation, a form of sample selection bias, may occur if important elements of a population are not included for study because they are not

evident at the time of the outcome, potentially resulting in skewed conclusions.

Another limitation of outcome-driven research is that retrospective reconstruction results in an accounting of the events that may be modified or reconstructed on the basis of subsequent events. Once an outcome is known, there is a risk of constructing an explanation or story to fit the outcome. Knowledge or events may well be forgotten over the course of time if there is no documentation or if an event has not been sufficiently reinforced in the memory of individuals or organizations who experienced it. A further limitation of outcome-driven research is that events may be collapsed in terms of the passage of time, resulting in an inaccurate representation of how and when events influenced or affected the outcome. The goal of outcome-driven research is to provide an explanation of how the event (or events) influenced or caused the outcome being studied. The order in which events occur in outcome-driven research is generally not significant; of more importance is the identification of all the events that contribute toward the outcome being researched and how they affected the eventual outcome.

Outcome-driven research relies on a variety of data sources, including interviews, archival data, survey data, ethnographies, and observations, which can be used individually or in combination to create a plausible explanation for why an outcome occurred. Bias may be reduced by using several information sources to mitigate the effect of retrospective sensemaking.

Application

Outcome-driven research comprises much of case study research. Karl Weick wrote an outcome-driven case study using as archival data a written account of a firefighting disaster wherein 13 smokejumpers (firefighters) perished in Mann Gulch, Montana, in 1949 when a forest fire over-whelmed the efforts of the jumper crew. The case study was undertaken to illustrate the breakdown of role structure and sensemaking in an organizational group and to contribute to the body of knowledge regarding temporary organizational systems, structuration, nondisclosive intimacy, intergroup dynamics, and team building. The book on which the case study is based, *Young Men and*

Fire by Norman MacLean, is itself an outcomedriven case study that used data from interviews, trace records, archival records, direct observation, personal experience, and mathematical modeling to retrospectively reconstruct the story of the fire-fighting disaster and attempt to explain what went wrong at Mann Gulch, the known event that triggered the study. More than 40 years passed from the time of the occurrence to when the book was published, so multiple data sources help mitigate any of the potential biases that may have occurred with the passage of time. The case study is rich with descriptive and elegant prose to create a narrative account of the events leading up to and surrounding the disastrous outcome at Mann Gulch.

Critical Summary

Outcome-driven research is interested in the antecedents or consequences of a selected outcome. The basic difference between outcomedriven research and event-driven research is the stance of the researcher and the type of research question being asked. In outcome-driven research the researcher is metaphorically facing backward, answering questions about what happened in the past and suggesting plausible reasons for why it may have happened. Event-driven research imagines the researcher facing forward toward an unknown future, asking "how" questions and following an event through time to explain what outcomes occurred and the subsequent sequence of events that resulted from decisions made.

Arlene Haddon

See also Event-Driven Research

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OVERDETERMINATION

French philosopher Louis Althusser's (1918–1990) concept of *overdetermination* is a complex, multifaceted, and structural model of causality. In contrast to the idea that simple internal contradictions within a system or social formation produce effects, overdetermination proposes that (revolutionary) effects are the result of an accumulation of contradictions (which are themselves complex and uneven). When contradictions accumulate or are condensed to generate an outcome, despite the fact that any one contradiction is sufficient to produce the effect, the event, outcome, or effect is overdetermined.

Conceptual Overview and Discussion

Althusser is often referred to as the leading proponent of the scientific strand of structuralist Marxism. Two of his collections of essays, *Pour Marx* (1965) and *Lire de Capital* (1965), deeply affected Marxist thought throughout France and elsewhere. Emerging in the postwar years and rising in prominence between 1965 and 1975, the structuralist branch of Marxism opposes the purported Hegelian and Feuerbachian humanism of the early works of Karl Marx. Althusser argued that young Marx was forced to contend with a language and an epistemological framework that engaged humanism and classical political economy;

these themes necessarily animated his early writings. Perhaps more important, Althusser also argued that Marx's body of work contains an epistemological rupture, a shift in the underlying theoretical problematic. Instead of being concerned with the essence of man, his species-being, as may be evident in his work throughout the 1840s, during the period from 1857 to 1863 Marx's work was decidedly different in its focus. Marx became concerned with the economic or material infrastructure and ideological superstructure of the capitalist mode of production, with revealing the historical logic of capitalism.

Central to this rupture, then, was a rejection of the classical economist's idea that the material needs of the individual give way to a particular economic system in a given historical moment, that individual needs are the basis for economic organization and thus a theory of society. Marx (and Althusser) emphasized instead the determining (or dominant) role of the mode of production in the formation of the social structure; the mode of production emerged as central to the evolution of social systems and key to Marx's historical materialism. For Althusser, this rupture also led to the emergence of a complex, multifaceted, and structural model of causality.

Counter to classical Marxism, a social formation or social system is not simply a reflection of the economic infrastructure; instead, the economic, politico-legal, and ideological systems each have their own deep structures and logics that operate over and above the individual constituting the prevailing social formation. Because of asymmetry, or the law of uneven development, any element of the social formation may come into dominance at any one time. Each system is relatively autonomous. Still, the economic, politico-legal and ideological systems are imbricative and cannot be considered absolutely autonomous. Ideology, for example, constitutes and is constituted by the conditions of existence. It legitimates the existing social order, mediating the contradictions of the economic sphere or system while also being materially embodied in the relations of production. Furthermore, each sphere is not equal in its causality. The economic system, as Althusser reveals, constitutes "in the last instance" a structure in dominance.

Borrowing from Sigmund Freud, Althusser uses the term *overdetermination* to replace the concept

of the Hegelian contradiction with this more complex model of causality. In any system—the forces and relations of production, laws and religion, structures and practices—concrete determinations that grate on one another are contradictory. All social formations have internal contradictions but as history demonstrates, contradiction does not necessarily result in social change, in evolution, in revolution, in rupture. For example, the general contradiction—the antagonism between capital and labor—may be a necessary condition for revolution, but it may not be sufficient. This is because contradictions do not exist independently of the social formation from which they are animated, a notion that foregrounds the effectivity of the whole in determining the constitutive elements. Contradictions are part of a collection that forms a complex whole, both determined and determining.

In contrast to simple contradiction, overdetermination is an accumulation of contradictions that coalesce into a *ruptural unity*. This structural notion of causality accounts for the *affects* of the whole or the structure on its elements and presupposes that effects exist within the structure itself (avoiding a clear differentiation between cause and effect). When many distinct events are sufficient to cause an outcome, no one event can be said to be the cause and, by implication, some causes can be considered redundant and superfluous even when they exist as contradictions. In this case, the outcome is overdetermined.

To uncloak the logic of overdetermination in Marx's texts, and to expose the shift in his underlying problematic, Althusser proposes a method that entails, in the tradition of the Freudian interpretation of dreams, careful and critical *symptomatic reading*. Symptomatic reading deconstructs the problematic, paying attention to what is implicit as well as to what is explicit. Omissions and inconsistencies signal originality and, as Althusser argues, Marx himself may not have fully grasped the contributions of his own work. If one reads under or past what is self-evident in his writing, a science of history emerges.

Application

For the researcher, Althusser's theory of overdetermination operates as guide for establishing causality and has three significant practical implications.

First, when the subject or phenomenon under investigation is positioned by multiple and competing discourses or social forces—each of which could determine the subject's location or the outcome of events—he, she, or it can be said to be overdetermined. Locations, outcomes, and effects are the product of complex accumulations of contradictions and, when overdetermined, meaningfully affect the establishment of causality. A change or rupture in one system (structural element or aspect of a phenomenon) does not necessarily result in the modification of the others. For example, change in the economic infrastructure is not perfectly mirrored by superstructural or ideological changes because the whole is constituted by "levels or instances" that are relatively autonomous and unevenly developed. Thus, comparable units of analysis (systems, elements, individuals) are never modified in precisely the same ways, and the new system always retains elements of the old. The researcher cannot slip into a simplistic logic of causality and change.

Second, the researcher cannot understand a phenomenon by merely looking at visible, obvious, or overt causes. We are influenced by a combination of visible and invisible, (i.e., embedded) factors. The researcher should attend to inconsistencies and omissions because these signal when the manifest is cloaking the latent. These lapses, silences, and distortions should be rearticulated with the manifest to expose the tension between the problematic and latent originality.

Third, the researcher must problematize causal representations or accounts, understanding them as couched in prevailing and available linguistic structures and epistemological logics. Furthermore, the researcher must not conceptualize couching as a conscious process; instead, he or she should engage a symptomatic reading that both (a) sees the tension between the manifest and the latent as productive and a site of struggle and (b) refuses the tendency for the manifest and the latent to be fused together.

Critical Summary

The theoretical concept of overdetermination and the method of symptomatic reading can in practice be difficult to embrace. The researcher must attend to a multiplicity of both relatively autonomous and yet highly imbricative causes while also reading symptomatically. Symptomatic reading requires that the researcher not simply read below the surface or between the lines but rather tease apart the manifest from the latent, the problematic from originality. Thus, the researcher must be aware of, or have the capacity to discover, the linguistic structures and epistemological frameworks at work in order to reveal the implicit or latent subtext. Prevailing logics and linguistic structures, however, are often available to us only in retrospect.

Cassandra S. Crawford

See also Structuration

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OVER-RAPPORT

Over-rapport is a term used when questioning the believability of a research report. Should a research report on Tasers that concludes they are harmless be believed if the manufacturer of the Taser has conducted the research? Would the results of the same study be more believable if the research had been undertaken by an independent investigator? In general, people are reluctant to believe fully the results of research undertaken by researchers with a vested interest in the subject of the investigation or an investigator seen to have an over-rapport with the subject of an investigation.

Conceptual Overview and Application

Case study research is a methodological model found in a number of academic disciplines, but it may be safe to assert that one of the oldest of those disciplines is sociology. Nearly 50 years ago, Alfred Schutz said that a sociologist is a disinterested scientific onlooker of the social world. At the time, sociologists were engaged in research on drug addicts, sexual deviance, and various assortments of criminals and other segments of society that had a commonsense distinction of being somehow deviant. Nobody would suggest that the researchers themselves were part of the world they investigated, and as a result of this assumed disinterest the results of their research were viewed as objective. This contributed greatly to the believability of their results. In technical terms, believability is embedded somewhat in the term *reliability* and more so in the term *validity*.

More than 50 years ago, Seymour Miller wrote a paper warning of the perils of participant observation and over-rapport. In short, it was generally held that for a research result to be taken at face value, the researcher ought not to be invested with the object of the investigation.

However, as one surveys the literature on case study research, in particular in earlier writings based on participant observation, one will see considerable dialogue concerning the need for researchers to really get to know the subjects under investigation, to try and put themselves in the other person's shoes, as John Lofland once wrote. Much of the early literature concerned itself with the difficulties of gaining a relationship with the field under investigation close enough to enable a true understanding of what is going on. Because researchers were working in areas that were outside of their own worlds, the methods for getting close to one's research subjects was an important issue.

Thus, in the early days of case study research believability (reliability and validity) was based largely on scholars who were outside of the worlds they investigated proving that they had gotten inside the community under investigation fully enough to justify a claim of thorough understanding. As time moved on, however, case study methodology became better known and showed promise as a way for scholars in other disciplines to investigate issues more within their own worlds.

One of the first scholars to fully combine his own experience within his investigative arena was Howard Becker, who studied jazz musicians while playing jazz himself in the clubs of Chicago. In his published accounts he wrote that the imaginative

use of personal experience will contribute to a researcher's technical skill. The security of believability in research results was crumbling because it was based on the notion that the researcher needed to be a disinterested scientist. However, the challenge for a disinterested scholar to really get to understand his subjects was also a typical challenge to the results of any study. As the case study research models became more prevalent, excellent examples of methodology provided an acceptable route for researchers to show how their results could still be viewed with a great degree of believability. One such way was for researchers to report not only their conclusions and a discussion of these but also to provide slices of the data themselves when building a case for the conclusions proposed. Once armed with an appropriate methodology, scholars from many disciplines began using the case study approach, basing their claims on believability more on the notion that their own personal experience provided a level of expertise that was unavailable to disinterested researchers and that with the inclusion of supporting data the conclusions could be reported with confidence.

One area that has flourished through the use of case studies is educational research. The research tradition that has grown under the umbrella of "teacher as researcher" has provided a significant body of results. Teachers have an expertise in classroom issues that can be exploited for the benefit of case studies that outside researchers cannot match. Outside researchers also lack the intimacy and access teachers have to their subjects.

Other professional groups like musicians, nurses and athletes have all had "insiders" using case study research to investigate aspects of their respective professional life. Using insider knowledge—but still building a respected body of research results around the notion of knowledgeable researcher fully exploring a topic and presenting results that are superimposed on presented

data—can assure the reader of believability in the study.

Critical Summary

The danger remains, however, that insiders will not move past the assumptions of shared meanings in interpreting results. It is therefore incumbent upon insider researchers to demonstrate clearly how the issue of over-rapport has been addressed in any study. The veracity of an account of research still rests with the ability to demonstrate with the words and actions of research subjects their lived realities. The researcher's personal experience, which forms the basis of the analytical canvas, must still withstand the test of the data.

Brian A. Roberts

See also Authenticity; Autoethnography; Credibility; Reliability; Subjectivism; Validity

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PARADIGMATIC CASES

Paradigmatic cases are carefully selected examples extracted from phenomena. The very process of isolating pivotal cases can reveal key elements of a phenomenon under consideration. A unique sort of logic—akin to knowledge acquisition by analogy and replication—attends to the use of paradigmatic cases in case study methodologies.

Conceptual Overview and Discussion

By way of an introductory statement, it is perhaps worth returning to the etymology of the terms paradigm and case to frame the meaning of paradigmatic cases. Literally, the term paradigm may be defined as "show side by side"; it derives from the parts para, meaning "beside," and -digm, from deiknynai, meaning "to show." This admittedly truncated etymology suggests that a phenomenon is revealed by the "showing" that happens when an exemplary element is extracted and placed alongside it. For its part, the term case refers to a "state of affairs." It derives from the old French cas ("an event") and the Latin casus ("a chance" or, more literally, "a falling," which derives from casor the stem of cadere, which means "to fall.") Such derivations imply that a case be considered as a contingent event with a decidedly historical singularity about it. Merging these etymologies, one might say that a paradigmatic case is a singular event that involves placing an exemplar alongside a phenomenon; by virtue of so placing, it shows or

reveals key elements of that phenomenon. One might add that the etymology also signals a degree of contingency involved in both the "falling" of the case and the way in which its appearance is taken to elucidate a phenomenon in a given context.

For some people, an entry dealing with paradigmatic cases might be expected to speak of representative examples that accurately reflect, or mirror, a more general phenomenon. However, the idea that a singular case might reflect something else is not at all clear cut within the more qualitatively focused logic of case study methodologies. Hence, for example, Robert Yin insists on a distinctive logic of theoretical replication (as opposed to, say, confirmation or verification) as a hallmark feature of case study analyses. It also distinguishes the approach from either survey or experimental methodologies—especially those that seek generalized statements based on the aggregation of variables across specific cases. An emphasis on singular cases, by contrast, works in another direction, with a different logic and in some formulations (poststructural) with quite different epistemological frameworks (i.e., those that challenge images of a correspondence between quantitative representations and an underlying world that is assumed to exist independently).

When evoking the concept "paradigm," commentators typically refer back to Thomas Kuhn's classic book, *The Structure of Scientific Revolutions*. Despite the book's notoriously ambiguous use of this concept, it is useful in context to note two influential formulations. The first, as Giorgio Agamben argues, focuses on what members of a

specific scientific community hold in common (e.g., values, techniques, methodologies, etc.). A paradigm here refers to the broader assumptive and normative universes that structure the worldviews of its participants. Kuhn's second sense of the term is more specific but is directly relevant to our discussion of paradigmatic cases. It conceptualizes a paradigm as an element of a wider whole (e.g., "normal science"), offering exemplars by which contextually specific meaning horizons are rendered understandable to participants. In this case, a paradigm may be thought of as providing an example that contains meaning and insight for participants, rendering phenomena understandable, practicable, and so on. It serves as a reference point for particular forms of intelligibility. Yet what sort of logic is at play here?

In a lecture titled "What Is a Paradigm?" Agamben argues that the logic of paradigmatic analysis is akin to that of reasoning by analogy. In addressing the distinctive logic at hand, he refers to Aristotle's Analytica Priora as the basis for understanding the sort of knowledge at hand: The paradigm, as an exemplar, does not refer whole to part, or vice versa; instead, paradigmatic knowledge involves a logic that refers part to part. In other words, unlike induction, which moves from the particular to the universal, or deduction, which moves from the universal to the particular, paradigmatic analysis involves a relation between particular cases to other particular cases. However, for Agamben, Aristotle's emphasis on terms such as universal and particular are not sufficiently precise, because paradigmatic knowledge is generated through a unique sort of conceptual relation—when a singular case is rendered exemplary of a wider set. Through its singularity, the case is placed beside the class, or set. However, that limited singularity is only ever possible by virtue of the relation that the case has with the set (class) to which it is deemed to belong. The complicating issue here is that, as a relation suspended between singularity and belonging, the case is never exactly particular or universal with respect to the class/set. And it is precisely in that state of suspension, on the side of a class/set, that the latter is shown, or becomes meaningful.

Consequently, as Agamben puts it, "the generality" or "the idea" that is shown through the paradigm case does not emerge by collating individual examples. It is instead a comparison of one

paradigm, a single case, with the class that the paradigm is designed to reveal. Such a comparison does something unique: It places the paradigmatic case alongside the phenomenon. Through that very placing alongside, the phenomenon becomes intelligible. Here we encounter how a paradigmatic case shows or reveals: As an example, it steps out of a class at the very moment that it reveals and defines it. The paradigmatic case is now illustrative of, but removed from, the phenomenon. Through this separation the phenomenon becomes intelligible (i.e., is shown). The paradigmatic case simultaneously, if paradoxically, emerges from, and constitutes, the set to which it belongs.

Application

Let us take an example to illustrate the point (acknowledging quickly, and thereby endorsing, the recursive gesture of taking a "paradigmatic case" to show what is meant by a "paradigmatic case"). In his Discipline and Punish: The Birth of the Prison, Michel Foucault provides an in-depth discussion of Jeremy Bentham's blueprints for a model prison the so-called panopticon. Bentham's architectural blueprints sketch a more or less circular prison structure with a guard tower located in the center and prison cells radiating around it. Each prison cell is backlit so that individual prisoners in the cells are highly visible to guards in the central tower; by contrast (by virtue of light configurations), the guards are invisible to prisoners. This structure was designed to encourage prisoners to internalize a perception of continuous observation by virtue of their not knowing whether they were under surveillance. Bentham meant his design to encourage a form of indirect governance, whereby prisoners constantly—even in the absence of guards—regulate themselves.

Even though Bentham's all-seeing (panopticon) blueprint was never actually built (many prisons did, however, extract key elements from it), Foucault considers it a paradigmatic case for his analysis of a specifically modern form of power: discipline. In other words, Foucault explores the case of the panopticon as a paradigmatic example of modern technologies of power. Setting it alongside, and as an example of, disciplinary techniques of power, Foucault is able to show, and render intelligible, the operations of a unique, nonsovereign power. In turn, this allows him to distinguish discipline from

the more haphazard, highly visible, and spectacular sovereign power exemplified by the public execution. In other words, Foucault treats the panopticon as a paradigmatic case that elucidates new disciplinary technologies that include hierarchical observation, indiscernible surveillance, normalizing judgment, and so on. This paradigmatic case, by virtue of its being placed side by side with the phenomenon of modern power, is at once an element thereof and yet serves to make such power intelligible. To put it another way, by opening out a conceptual space that situates a paradigmatic case (the panopticon) alongside the phenomenon (modern disciplinary power), and charting the exemplary elements of that case (e.g., invisible, continuous surveillance that encourages individuals to regulate themselves), Foucault renders the phenomenon of modern discipline intelligible.

This sort of example shows the paradigmatic case to be an event that places a singular example in a suspended relation to the side of a phenomenon. In that very process a given phenomenon, class, or set is rendered intelligible. Such is the suspended, contingent, and relational logic of knowledge yielded by paradigmatic cases.

Critical Summary

The use of paradigmatic cases has the potential to extend the range and application of case study methodologies, enabling new ways to elucidate phenomena. It requires a different epistemological frame and may not be appropriate to all instances. The effectiveness of the approach depends on the careful selection and extrapolation of examples; the gain is a nuanced exploration of otherwise-unelaborated phenomena.

George Pavlich

See also Critical Discourse Analysis; Deconstruction; Discourse Analysis; Genealogy; Phenomenology; Poststructuralism

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PARADIGM PLURALITY IN CASE STUDY RESEARCH

This entry explains the development of paradigm plurality in case study research in management and organizational studies. In so doing, it argues that the benefits of paradigm plurality far outweigh the shortcomings and that it is important for case study researchers to encourage perspectives emerging from multiple paradigmatic viewpoints. We argue that this is desirable not only from a theoretical point of view but also in light of the complex changes taking place in contemporary society.

The most common understanding of the concept of "paradigm" derives from Thomas Kuhn's work, in which a paradigm is held to represent, on the one hand, a constellation of beliefs and values that are shared by members of a given scientific community (paradigm as a *disciplinary martix*) and, on the other, one element in that constellation, the concrete puzzle solutions that, employed as models or examples, replace explicit rules as a basis for the solution of scientific puzzles (paradigm as an *exemplar*). For the purpose of this entry, however, we define *paradigm* according to Gibson Burrell and Gareth Morgan as a shared set of views, values, and writing conventions around which social science research communities are formed.

We argue, further, that despite Jeffrey's Pfeffer's position that mono-paradigm absolutism is a sign of maturity within management research, what is happening on the ground is a shift toward paradigm plurality. Since the early 1990s, this trend has been noted by writers in organization theory, such as John Hassard, Majken Schultz and Mary Jo Hatch, and Mihaela Kelemen; international business, such as Arvind Parkhe; strategic management, such as William McKinley and Andreas Georg Scherer; operational research, such as that conducted by John Mingers; and technology studies, such as the one conducted by Marianne Lewis and Andrew Grimes. In what follows, then, we highlight the advantages and disadvantages of the multiparadigm

approach and present specific strategies of multiparadigm case research within organizations.

Conceptual Overview and Discussion

Advantages and Disadvantages of Multiparadigm Research

The advantages of paradigm plurality for case study research in management and organizations have been widely acknowledged in the literature. It is argued, for example, that the use of a single research paradigm produces too narrow a view to reflect the multifaceted nature of organizational reality. Dennis Gioia and Evelyn Pitre perceive the use of multiple paradigms in case study research as a better way of fostering more comprehensive portraits of complex organizational phenomena.

It is our view that knowledge about more than one paradigm can raise awareness of alternative research styles and agendas and, in so doing, foster innovation and creativity in research. Knowledge of other paradigms allows an academic to become detached from a preferred view of the world and engage in exploring new research avenues. Although some of these avenues may lead to contradictory findings, researchers can build upon such contradictions to produce accounts that are richer and more illuminating and that question the interests reflected by and re-enacted in such accounts. Marianne Lewis argues that paradox and contradiction are drivers of scientific innovation.

By becoming literate in multiple paradigms, researchers can also engage more effectively in conversation with other colleagues and with practitioners. Only through an open and democratic dialogue, involving all stakeholders, can organizational disciplines decide: What is most important to study? What are the most appropriate methodologies? What are the likely effects of emerging theories on social realities? Cooperation rather than competition could prove much more valuable in the enterprise of knowledge production.

Paradigm plurality also allows reconciliation between the various agendas pursued by researchers. We can identify four main agendas in this respect: (1) Some researchers aim to create theories that control and predict the social world; (2) others are driven by an interest in understanding how meaning is constructed, negotiated, and enacted; (3) still others pursue some form of

critical science that aims to emancipate various groups of people; and (4) there are researchers whose main agenda consists of providing practical solutions to short-term organizational practices. Although there remain substantial tensions between these cross-cutting agendas, it can be argued that some areas of research may benefit if pursued at their intersection. Whereas most organizational researchers readily embrace the first two positions they perhaps rarely consider the effects their work has upon the objects of inquiry. Put another way, gaining understanding is what drives their research; what happens afterward is no longer the concern of the theorist. However, such findings could perhaps be put usefully to the service of improving organizational efficiency or emancipating organizational members (i.e., Agendas 3 and 4).

Furthermore, according to John Hassard, Mihaela Kelemen, and Julie Wolfram Cox, the pursuit of multiparadigm research ensures the preservation and legitimization of points of view that might otherwise be perceived as marginal or indeed be suppressed by the dominant orthodoxy. Thus, those theories that speak in the name of the silent and the unheard, as Jean-Francois Lyotard would put it—for example, labor process theory, critical theory, feminism, and poststructuralism construct a place from which to voice their concerns. If management and organization studies are to be indeed "ethical" they have to encourage a plurality of diverse voices, some of which will stand in total opposition to the interests promulgated by positivist social science.

There are, however, numerous hurdles and disadvantages to doing multiparadigm research. One's socialization in a particular paradigm and its reinforcement through existing institutions make it difficult for researchers to question their preconceived ideas about the world, binding them to a particular vision of the world. Furthermore, a researcher's acceptance of and engagement with a plurality of paradigms does not come easily; it requires far more training and effort than does researching a single paradigm. In instances where this does occur, it is perhaps more common for positivists to explore alternative paradigms than for interpretive/critical researchers to go back to basics (and study positivism). According to Marianne Lewis and Mihaela Kelemen, committing to more than one paradigm brings with it cognitive and emotional costs. Leaving a particular paradigm to engage with a new one can be a painful operation. Indeed, for some individuals it may be impossible to move across paradigms, either because they consider it their moral duty to defend a particular set of scientific interests or because they do not possess the emotional or technical repertoire necessary for venturing into new domains.

John Hassard, Ruth Holliday, and Hugh Willmott suggest that knowing and acting effectively in a new paradigm make substantial demands upon the individual, demands that can be satisfied only through active bodily involvement, experience, and practice. Assuming that the researcher can actually become socialized within the language and practice of a new paradigm, problems may arise if there are significant and substantive conflicts (or dissonances) between the metatheoretical assumptions of the new paradigm and the old. The researcher must search for strategies to reconcile such conflicts or dissonances, a process that may require a great deal of cognitive resourcefulness and determination.

Operating across paradigms undoubtedly makes it more difficult to engage in acts of scientific certification. Researchers pursue certification of their knowledge as much as they pursue knowledge itself, because knowledge without an audience is redundant. In so doing, researchers rely on multiple rhetorical devices as instruments of persuasion. Thus, a positivist account would make use of statistical data to convey a particular point of view, whereas a social constructivist analysis would ground the argument in rich ethnographic data. A multiparadigm study would have recourse to both types of evidence, but in so doing may ultimately upset both scientific camps for not taking seriously enough the conventions and rigors embraced by them respectively. Career choices may also be more limited given the general lack of institutional legitimacy attached to such pluralist research approaches. Traditionally in social science one is either a qualitative or quantitative researcher, but rarely both.

Also, the use of multiple lenses comes with a theoretical caveat. Andreas Georg Scherer and Horst Steinmann warn that mixing several positions may not necessarily lead to more comprehensive explanations of the organizational world. If the various paradigm positions adopted in a research investigation each have theoretical or empirical deficiencies, then research based on a

combination of these may actually lead to suboptimal analysis.

Application

Strategies for Multiparadigm Research

Despites these latter arguments, an increasing number of organization researchers have advocated the need to engage in multiparadigm forms of enquiry. Researchers such as Mihaela Kelemen and Nick Rumens argue that this is not only theoretically feasible but also empirically crucial if we are to comprehend better the complex nature of contemporary organizations and their environments.

Dennis Gioia and Evelyn Pitre are among the writers who argue for the theoretical feasibility of multiparadigm research. They suggest that one must accept that paradigms share certain common concepts, entities, or transition zones; otherwise, new theories would have no basis from which to refute or amend previous theories. With reference to the later works of Thomas Kuhn, Gioia and Pitre argue that, in order for a paradigm to gain credibility and achieve a position of dominance it would have to question continually an existing paradigm in terms of its favored assumptions and procedures. Therefore, in order to question an existing paradigm, proponents of the new paradigm have to be able to converse in terms that can be understood by the "old guard," their prospective audience. According to this interpretation, Kuhn's later works suggest that even though there might not be a common language in which the contents of a rival theory can be *fully* expressed or evaluated, there is always a degree of commensurability, for otherwise a new theory could never develop.

In support of the theoretical feasibility of multiparadigm research, Garry Weaver and Dennis Gioia build on Anthony Giddens's theory of structuration. They do so to argue that the typical divisions between determinism and voluntarism, object and subject, description and prescription, and holism and individualism can be resolved via a dialogue between paradigms. They argue that paradigms reflect various facets of one social phenomenon and that the denial of this principle would mean we have different phenomena rather than multifaceted ones. According to these authors, the use of any single research paradigm would produce a view that is too narrow to reflect the multifaceted nature of organizational reality. Because each paradigm constitutes a legitimate part of a larger scheme, it is important to pursue multiparadigm research from the position that paradigms are distinctive but at the same time permeable.

Majken Schultz and Mary Jo Hatch also advocate the need for multiparadigm research. In their view, multiparadigm thinking is both likely and desirable in light of predictions about diversity in postindustrial society. They propose a strategy of paradigm crossing, named *interplay*, which is defined as the simultaneous recognition of both contrasts and connections between paradigms. In interplay, the researcher is seen to move back and forth between paradigms, allowing multiple views to be held in tension. This approach has sympathy with the work of Marianne Lewis and Andrew Grimes, who provide a step-by-step guide to building theory from multiple paradigms, a process they term *metatriangulation*.

In the United Kingdom, multiparadigm thinking and research have been advocated by John Hassard, who is concerned not only with the theoretical underpinnings of paradigm commensurability but also with producing empirical accounts of a multiparadigmatic nature. Hassard argues that although the later Kuhn talks about tentative communication between paradigms, this position is still not satisfactory. For Hassard, Kuhn fails to go far enough toward a form of analysis that would retain paradigm identity while offering an alternative to hermeticism. Hassard suggests instead that we turn to the later works of Ludwig Wittgenstein, which provide a more acceptable solution to overcoming theoretical hermeticism in organization theory. Wittgenstein considers that our metalanguage, or everyday language game (our basic language, the first language that we accommodate), underlies all technical and special language games. As a result, the rules and conventions of our metalanguage-in-use allow us to deal not only with a present language game but also with a new language game into which we may be trained. Because the metalanguage-in-use is the basis for training into other technical languages, it appears clear that understanding and using two or more technical language games at the same time is achievable. Hassard's fourfold account of work behavior in the British Fire Service is an illustration of how researchers could muster more than one language game and write multifaceted accounts of the same organizational phenomenon.

Hassard's research on work behavior in the British Fire Service focuses on work motivation. The starting point for his functionalist study was Richard Hackman and Greg Oldham's job characteristics theory and its associated model. The main objective of the research was to assess, applying statistical methods for analyzing the data, how full-time firefighters evaluate job characteristics in terms of motivational potential. One hundred ten questionnaires were distributed to firefighters in three categories: (1) firefighters within their probationary period, (2) qualified firefighters below age 30 and who had less than 8 years of service, and (3) firefighters of over age 35 who had more than 15 years of service. In terms of accepted levels of statistical interference, the analysis found significant differences between scores for the three fire service groups. The results were then compared with the normative scores published by Richard Oldham and his colleagues. Hassard's evidence suggests that although the firefighter's job has low levels of motivation potential, this is not an issue because employees' needs for psychological growth at work are also quite low. He also found no major correlational differences between core job characteristics and their corresponding psychological states, thus backing the original research by Hackman and Oldham.

Hassard's second account, the interpretivist study, involved an ethnomethodological analysis of British Fire Service work routines. The aim was to understand the recipes firefighters employ to make sense of their world at work. The main finding was that behavior is influenced and influences the collective understandings of what needs to be done in order to be promoted in the organization. As such, personal action was indexed by a contextual system of meaning that was constantly enacted by the firefighters.

In the third account, Hassard starts from the notion that the role of management functionalist science is central in reproducing organizational common sense. As such, he analyzed training practices relating to courses taken by firefighters looking to be promoted to first-line supervisors. Throughout the courses, the dominant theme of the instructors was to settle doubts about questions of loyalty. In so doing, senior training officers selected materials that reinforced the logic of the authority structure. The research illustrates the ways in which the dominant culture of the

organization is reproduced with the help of "acceptable" theories of management.

In the final account, Hassard takes a Marxist stance, highlighting crisis points in the firefighting labor process. More specifically, it analyzes the strategic relations between capital and labor with regard to the development of the employment contract. Given that the firefighters' working hours have been reduced to align more closely with other manual occupations, measures had been introduced to control work practices more tightly in order to improve productivity levels. The radical structuralist study illustrates the concrete actions of labor, capital, and the state aimed at resolving the various crises in the firefighting sector.

Although the authors discussed in the preceding paragraphs attempt to preserve the identity of paradigms, others suggest that boundaries might need to dissolve, at least on a temporary basis, to ensure the creation of common reference systems, or dictionaries, that are democratically accepted by all. William McKinley, for example, suggests that the adoption of a "reasonable realism" may be the key to overcoming hermeticism. Reasonable realism, in its quest for a truth that can be known only with uncertainty, could help to create a common reference system by which paradigms can be reconciled and evaluated. The aim is to disconfirm all paradigms that do not conform to that reality as defined by standard constructs. This argument is refined further in more recent work. Here, the ambiguity of the key constructs that form the building blocks of organization studies is identified as the major reason for persistent interschool incommensurability. McKinley recommends the creation of a dictionary that would include democratically produced definitions of key organization studies constructs.

Contrary to this idea, Andreas Georg Scherer suggests that there is little point in searching for the "right" criteria to evaluate systems of orientation from an observer's perspective. Instead, researchers should seek methods for how to interact and communicate with each other in order to improve practice. Instead of acting as passive observers, researchers should engage in the resolution of the paradigm debate as active participants. Given that the ultimate goal of science is to improve practice, a dialogue among the participants will have a significant impact on improving managerial and organizational practice.

Finally, Andrew Wicks and Edward Freeman have also discussed this appeal to pragmatism. They

urge researchers to move beyond epistemological distinctions between paradigms by making room for ethics and thus increasing the relevance of research. Pragmatism is highlighted as a useful tool in that it sheds light on the moral dimension of organizing. Wicks and Freeman do not think it is possible simply to combine various paradigms or split the difference between them in order to create a compelling alternative to the current situation. They advocate instead a different approach to organization studies, one they term pragmatic experimentation. Building on Richard Rorty's work, the authors construct an alternative vision of organization theory that subscribes to usefulness as a central organizational value. The pragmatic value of usefulness requires those engaged in research to scrutinize the practical relevance of a set of ideas as defined by their purposes and those shared by the community. Researchers doing this type of work would see organization studies as a vehicle to help people lead "better" lives and promote novel and innovative approaches aimed at precisely the same goal.

Critical Summary

This entry has discussed the development of paradigm plurality in organizational case research. In so doing, it has reviewed some of the advantages and disadvantages of multiparadigm research and argued that the overall benefits from paradigm plurality outweigh the shortcomings. The position adopted here is that it is crucial for researchers to preserve and encourage theories emerging from multiple paradigms, a scenario that is not only possible from a substantive and theoretical point of view but also highly desirable in light of the changes taking place in contemporary organizations.

John Hassard and Mihaela Kelemen

See also Knowledge Production; Paradigmatic Cases; Reflexivity; Sensemaking; Structuration

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PARTICIPANT OBSERVATION

Participant observation is a key social science research approach. It involves observing and interacting with the subject of interest while actively participating in the setting as well as getting very close to research participants and gaining an intimate knowledge of their practices through intensive immersion in the field of study.

Conceptual Overview and Discussion

Participant observation's roots as a methodological approach lie in social anthropology, where researchers study cultures by closely observing actors, behaviors, and norms. Also used widely in the field of sociology, participant observation was developed further by the Chicago School in the 1920s and 1930s. These researchers became identified with the practice of ethnographic methods, including participant observation.

Participant observation is a key tool in *ethno-graphic investigation*, which seeks to describe human interaction and behavior through firsthand accounts and field work. Participant observation is in effect a combination of a wide variety of methods, including observation; informal interviews and/or conversations; analysis of other materials

and evidence encountered while in the field; biographies, life histories, and personal accounts and stories of participants; and researcher documentation and diaries. It is associated primarily with the qualitative research approach because it is (a) often exploratory in nature and (b) used when there is a lack of existing empirical evidence about a group of individuals. It can also incorporate quantitative features either in terms of the data collected or analyzed. Because the approach involves the observation of people on a firsthand basis and coming to understand their collective and individual behaviors, norms, and customs, it is necessary for the researcher to carry out extended periods of field work to permit in-depth immersion. Longitudinal and repeated periods of study allow for the collection of greater and more varied data, provide increased opportunities for comparative observations, and enhance the accuracy of data and resultant findings.

There are two main forms of participant observation: (1) covert participant observation and (2) overt participant observation. The former involves posing incognito as a "genuine" member of the social group or making observations about a group in which the researcher is already a member. The latter involves clearly indicating the true identity of the researcher, and usually the purpose of the research, to those who are being observed. Covert participant observation is increasingly rare because of the ethical questions surrounding covert methods and the inherent deception involved. However, proponents of the method argue that under certain circumstances it may be justified, for example, when there is no other way to secure access; when there are concerns about the effect of the researcher's presence; when researchers are interested in contexts where there may be illegal activity, taboo behavior, and suspicion of those in authority; and when investigating misdemeanors as they occur (e.g., bribery, drug taking, sexual harassment in the workplace).

Application

Participant observation has been applied to a variety of contexts and settings. By actually being with the people of interest, novel and firsthand insights are often obtained. This closeness allows the researcher to live and breathe the everyday realities

of the social worlds in which they are interested. Early social anthropologists and explorers used participant observation to study remote communities in Africa and Asia. Although originally deployed by social anthropologists interested in non-Western indigenous cultures and communities, participant observation has come to be used in Western society also.

Differences between the researcher and participants are not always so marked, however; some researchers choose to partake in participant observation of settings within which they are already partially members. Such "bicultural" observers provide access, trust, absorption, and interpretation that, some scholars argue, may more closely mirror those within the social setting than data collected by someone who is more of an outsider. For instance, a shared religious heritage may help a participant observer become part of a religious group or sect.

Participant observation studies have looked at a whole host of cultural structures and interactions, such as those involving sexual behavior, gang violence, and drug taking. For instance, Howard S. Becker, a famous sociologist, carried out participant observation of professional jazz musicians. Himself a professional jazz pianist, Becker presented his research in his seminal text *Outsiders*, published in 1963.

A very controversial study that employed covert participant observation was Tearoom Trade, written by American sociologist Laud Humphreys and published in 1970. This was based upon an ethnographic study of anonymous homosexual encounters in public toilets (known as tea rooming). Humphreys employed covert participant observation to observe those involved. He later traced participants through records of their vehicle license plates to their home addresses. He then interviewed them using an alias in order to secure additional information about them, such as their domestic circumstances and sexual profiles. He found that a significant proportion of participants presented themselves as heterosexual men in their day-to-day lives. His study, although much criticized from an ethical standpoint, did a great deal to enhance our understanding of the sociology of sexuality.

There have also been significant applications of the method of participant observation outside of academia. In the arena of investigative journalism it has evolved into a key technique for acquiring information, infiltrating groups, and reporting on sensitive or politically charged situations. The method has also been used by writers and novelists to recount autobiographical experiences of living with certain groups or enduring specific social conditions. A well-known example is George Orwell's Down and Out in Paris and London (1933), which documented his experiences of poverty when he worked at the bottom rung of workplaces, such as hotel kitchens, and of those he encountered in two cities. More recent examples by investigative undercover journalists who wanted to expose the issues of low pay and poverty include Barbara Ehrenreich's Nickel and Dimed: On (Not) Getting By in America and Polly Toynbee's Hard Work: Life in Low-Pay Britain.

Critical Summary

Participant observation is not a straightforward approach, because it combines multiple methods and because researchers are placed outside their own natural environment and within essentially foreign ones. There are also various ethical challenges that need to be addressed and reflected upon prior to entering the field. These include consent and the honesty of the research endeavor whereby those under observation are aware of that fact and are willing participants. In addition, the issues of researcher effects, lens (or standpoint), perception, and access necessitate some discussion.

In terms of researcher effects, researchers are, in essence, invited participants, but their presence in the field may change the group they are observing. This may cause a certain degree of distortion. They may introduce foreign norms, material goods, values, language, or other elements that can disrupt those that existed before they joined the group. This is important not least from a methodological perspective because their presence in and hence influence on the setting disrupts the very thing they wanted to observe, especially when participants become aware they are being observed. Indeed, it is for this very reason that some people have continued to argue in support of more covert methods that do not alter the research setting to the same degree.

In terms of lens, one needs to acknowledge that it is the researcher who in the end chooses whom,

what, and when to observe, document, and analyze and the aspects on which to focus. This engenders specific power-knowledge discourses and renders the participants as more passive inasmuch as they have limited control over how they are eventually represented by the researcher. Attempts to rectify this issue have included researchers observing settings in which they are already a part and with which they are already familiar, thus giving them prior authority and access in terms of the interpretations made (in other words, more autoethnographic research). Some researchers have attempted to give participants greater say in the findings and representations by sharing these with them and inviting them to take part in their interpretation. However, this latter approach may cause disruptive effects, as discussed earlier.

In terms of perception, researchers also carry with them to the ethnographic setting certain preconceptions and emotional baggage. These may influence or cloud their observations and interpretations. It is for this reason that extended immersion in the field is preferable because this allows the researcher more time to acclimate to the environment and learn behaviors and customs. The settling-in period is thus very important. Some ethnographers also employ the method of grounded theory to help tackle this issue. In simple terms, grounded theory is both an epistemological standpoint and a set of practical tools that seek to avoid exposing the researcher to excessive information about subjects prior to data collection. These include secondary sources and other readings that may cause certain expectations and preconceptions and may influence the direction and nature of analysis.

In terms of access, researchers not only need to secure access to the subculture, group, site, or organization that they are interested in observing and effectively become part of, but they also have to build up trust relationships with actors and make attempts to negotiate access to genuine interactions and behind-the-scenes events. Differences between the researcher and the researched may make this challenging or may require extended periods of immersion in order to build the necessary rapport and relationships. These may be, for example, cultural, racial, religious, or ethnic differences. There may even be some differences and demographic

features that make it impossible for the researcher to access certain settings or elements within those settings. Also, power or status structures might make access difficult. Some subgroups may reserve certain rituals or activities for particular people, such as elders or men, and an attempted intrusion could be disrespectful or even dangerous. Consider, for instance, the difficulties facing a female researcher interested in carrying out participant observation of the interactions of members of an all-male Masonic lodge. It is unlikely that she would be permitted research access because of her gender and the high level of secrecy of this type of society.

Overall, therefore, participant observation especially that derived from an ethnographic frame of reference—involves the researcher trying to observe and acquire the perspectives of the people involved in certain groups or social processes. This poses epistemological issues of representation, however, because these perspectives are always partial understandings of what is going on and are subsequently sifted through the lens of the researcher. This may not be a problem, depending on the stance of the researcher. It becomes a problem if one claims that a partial account is the whole truth. A more multidimensional picture of and feel for the context can be developed by combining accounts, observations, material culture, data sources, and reflections from the self. As discussed earlier, researchers must have strategies to deal with the following issues: (a) multiple sources of evidence that they are likely to encounter while in the field, (b) the partial or "limited" perspectives of actors located at certain points in a social structure, (c) the reluctance of participants to divulge secrets or communicate openly, (d) participants' distrust or suspicion, (e) the possibility of people being told misinformation, and (f) attempts to please the researcher with stories/performances of what it is thought he or she wants to hear/observe. The toolkit of the participant observer should include the desire and ability to devote sufficient time to field inquiry, collating multiple sources of data and evidence, accessing people at different points in the social structure, and comparing/ corroborating evidence wherever possible. Covert methods or disguising the true purpose of the investigation are both ethically questionable practices, but they have been employed to overcome

some of these challenges and have yielded often fascinating results.

It is also important not to view social groups as static. Human behavior, cultures, and interactions are fluid and changing. They are naturally subject to processes of flux regardless of whether the researcher is present. It is therefore important to recognize that participant-observation studies, while yielding often vast amounts of vivid descriptive information, are usually fixed in time and place, although they record valuable historical events. It is important to avoid deterministic interpretations and to recognize the dynamic nature of different environments, institutions, and cultural groups.

MariaLaura Di Domenico and Nelson Phillips

See also Autoethnography; Chicago School; Ethnography; Grounded Theory; Qualitative Analysis in Case Study

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PARTICIPANT RIGHTS

See Subject Rights

PARTICIPATORY ACTION RESEARCH

Participatory action research is an emancipatory method in which individuals affected by an issue or problem engage in activities of practical relevance to their lived experience, generating new understandings of both process and context. It is a method that enables the coproduction of new knowledge and theoretical insights for innovation and social change in applied contexts. In this way, power inequalities between researcher and the researched can be revealed and neutralized. Processes of collaboration and taking action are as integral to this method as the outcomes. Value is added in applied everyday settings, and learning by doing is facilitated through cycles of reflexivity.

Conceptual Overview and Discussion

The conceptualization of action research is generally attributed to social psychology theorist Kurt Lewin, who drew on whole form or gestalt theory to suggest that the mind perceives holistically: that perception comprises far more than the sum of isolated atomistic stimuli. Concepts about the synergistic nature of perception and the interdependence of variables underlie the method. Interpretation, experience, and perception emerge from dynamic interactions and are strongly influenced by socioenvironmental context. This resonates with Kantian philosophy and the phenomenological work of Heidegger and Merleau-Ponty in conceptualizing sensemaking or "being in the world" as not some reducible or unified thing but rather an "in relation to" phenomenon, a process of becoming not readily accessed or understood by external observation.

Lewin emphasized that, for social practice, research that results in text alone does not suffice. What is needed is an exploration of the conditions and effects of various forms of social action and research that leads to social action. The conceptual schema for participatory action research involves a spiraling of steps, comprising iterative cycles of planning, taking action, reconnaissance, reflection, and further action. It is a method for problem solving in social, community, and organizational settings based on experiential learning. Reflexivity emphasizes the mutual dependence of researcher and the researched, their influence on actions taken, and that sensemaking emerges from the dynamics of process. It is an interactive rather than extractive method.

Peter Reason suggests action research links to Marxist and Gramscian critical theory by realizing the adage that it is our responsibility to not just understand the world around us but to change it. Latin American theorist Paulo Freire developed a critical pedagogy of the oppressed and advocated participatory action research methods to inform antiracist practice, contest epistemological imperialism, and contribute toward the liberation of the underprivileged—in particular in non-Western locations.

In third world and Indigenous contexts, relations of power and the continuing effects of past colonial violence and racial domination raise ethical research and epistemological concerns. A key question here is what constitutes appropriate knowledge and who appropriates it. Indigenous research theorist Linda Tuhiwai Smith conceives of participatory action methods as empowering ways to decolonize the research process. Accountability for real-world impacts of research on those affected is central to this method. Cycles of reflection-action-reflection form what Freire calls conscientization: consciousness and consciences are developed through processes determined by Indigenous peoples operating as agents/ partners—not by being positioned as objects of positivist study or subjected to external gaze. The usually undeclared interests of researchers are more readily exposed. Knowledge is coproduced and rooted in solidarity with the experiences and issues that shape the political and social realities of Indigenous life.

Application

Participatory action research is used in many settings and for differing purposes, from understanding mainstream organizational change to working in community development contexts or researching social movements. It articulates with critical ethnography, critical feminist research methods, performance ethnography, and narrative approaches.

This case study example is drawn from a national research project titled "Social and Cultural Factors in Indigenous Enterprise Development, Management and Governance" undertaken by the authors in partnership with Indigenous communities and a nongovernment office in central Australia. In this case study, participatory action research was adopted in response to the expressed wish of Indigenous Anangu Pitjantjatjara Yankunytjatjara communities, located in remote central Australia, to enlist researchers to work with them on ways to

build sustainable local enterprises on their lands. The project aimed to uncover social and cultural factors in Indigenous enterprise development, governance, and management by working collaboratively with three Anangu community partners, comprising homelands and extended kinship groups and a mainstream community development nongovernment office, to generate community-based social enterprises.

Community members determined what enterprises they wanted to develop, and why, and they exchanged ideas, expertise, epistemological frames, and cultural knowledge with researchers about priorities and possibilities. Through collaborative workshops, interviews, and group discussions, direct actions have been taken to trial enterprises ranging from cultural tourism ventures led by local elders to a homeland-based sole-operator soap-making business, a community-based paper products venture, and a secondhand store social enterprise. Learning is by doing, and research understanding emerges through reflexive analysis of the constraints and opportunities encountered in undertaking each endeavor.

The participatory action approach brings researchers into direct contact with the daily racisms and institutional constraints of poverty and distance, which are the norms of lived experience for Anangu coresearchers. Simplistic white notions construct Indigenous lives as dysfunctional and suggest that top-down, one-way, capacity-building processes unravel when people work together toward common goals. Learning becomes a two-way process, and the ignorance and prejudice that shape Indigenous domains is revealed in the struggles, isolation, lack of basic services, and hardships encountered. By "walking" together new ways of "being" together are found.

The aims of research processes and the value of externally derived business planning and governance models sit side by side, increasingly enmeshed with and directed by the legitimate aims of Anangu community collaborators for control over resources, use of time, and cultural integrity, within an intercultural space. The team becomes an interactive third space where experiential learning is shared and situational leadership is exchanged according to location and activity. Relationships between people from different worlds and among people, land, and culture(s) assume a deeper meaning that

resonates with a shared vision and commitment that surpass words and transcend differences.

The social and cultural factors that impact Indigenous enterprise development are revealed through the process of engagement itself, in ways kinesthetic as well as cognitive. Periods of action are augmented by shared discussions that align experience, observations, and perceptions to build shared understandings. "Thick" descriptions emerge of the "whiteness" of the political economy that confines and inhibits Indigenous entrepreneurship in discursive and material ways. Meaningful collaborative action, the dialogue and relationships formed between Indigenous and non-Indigenous coresearchers working together on common goals, becomes part of the data to be analyzed and interpreted as a form of experiential or narrative "text." Key success factors are identified.

The researchers share the Anangus' frustrations as they attempt to generate independent sources of revenue, converting culture to capital or disrupting the charitable supply of goods into social enterprise that levers up skills, placing control of goods and services in community hands. They search together for useful ways to manage and support local business development in a cultural context where the customary economy of arts/hunting/ gathering is still an active, albeit unseen and undervalued space of productivity. They experience together the barriers, frustrations, and disappointments encountered, and they debrief one another reflexively, maintaining solidarity as coresearchers working toward the same project goals. Challenges emerge about reconciling economic with social and cultural objectives; these challenges are compounded by remoteness, community dynamics, and politics.

Anangu leaders, who commit funds, time, and resources to the project, enlist, with their non-Anangu researcher partners, additional seeding resources to trial homeland cultural tourism ventures. Knowledge gained from the pilot study builds momentum and leverages other resources.

It would be impossible to theorize the complexities of remote Indigenous life and the resulting social and cultural factors at play in enterprise development by observation or data collection alone. The participatory action research approach generates deep layering of knowledge, greater than

its constituent parts. Ethical priority is given to contributing back in practical ways to communities. The value of this approach lies in its relevance and connection to daily Anangu life as well as its capacity to generate new knowledge, contributing insights from the ground up to build theory and inform policymakers of more appropriate ways to support Indigenous enterprise development.

Critical Summary

When communities initiate, design, implement, and participate in directing collaborative actions for local benefit, a transformation of power occurs. This method contributes to decolonizing power relations between the researcher and the researched. Synthesizing research with action is an ethical and dialectic approach that fosters creativity. Balancing action with reflection is complex, however, particularly in cross-cultural contexts. The challenge is to maintain perspective while remaining actively engaged and emotionally involved. Indigenous cultures tend comprehend knowledge and holistic wisdom as qualitatively different more readily than non-Indigenous cultures. Ideally, participatory action research welds together thinking, feeling, and doing, applying knowledge to action to produce new wisdom.

> Deirdre Tedmanson and Subhabrata Bobby Banerjee

See also Action-Based Data Collection; Colonialism; Epistemology; Native Points of View

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PARTICIPATORY CASE STUDY

A participatory case study is a mode of case study research that involves the participants, local groups, or the community in all phases of the research process, from conceptualizing the study to writing up and disseminating the findings. It is ideologically oriented in its focus and explicitly emancipatory in its goals. It generally takes the position of social critic and proposes radical change in social structures and processes as well as reformulating the entire approach to research, voice, power, and knowledge production and use. Participatory case study research emerged from the liberation and anticolonial philosophical approach of Paulo Freire; in it, participants are not incidental to the curiosity of the researcher but are experts on the underlying causes of the issues within their social world. The research process becomes a means of moving their voice from the margins into a place of centrality. In participatory case research the case participants become contributing researchers.

Conceptual Overview and Discussion

Participatory research is fully collaborative and emphasizes deliberate participation, contribution, empowerment, and emancipation of all relevant parties in actively examining some issue that participants experience as problematic. An outcome of the research process is to change and improve the social situation under investigation. Participatory case research is designed to address specific issues identified by local people, and the results are directly applied to the problems at hand. Therefore, it is ideally done *by* the local people and *for* the local people. It has emerged in recent years as a significant methodology for intervention,

development, and change within communities and groups. It is now promoted and implemented by many international development agencies.

The guiding principles underlying participatory case research are summarized in the following list.

- Participatory research is fundamentally conceptualized as a social action, changeoriented methodology. It promotes a dialogue between the local, "insider" understandings of participants in a social context who are dissatisfied with the status quo and want change, and the general, "outsider" understandings of social scientists and researchers. Meaningful participation ensures that all partners are invested in the project results.
- There is an assumption of coequal status of practitioner knowledge and expert knowledge.
- The formal boundaries between the traditional roles (researcher–subject/participant, knowledge producer–knowledge consumer, etc.) are reduced or eliminated in favor of a variety of interchangeable egalitarian roles. The research process is designed to enhance the knowledge and skills of all participants.
- The goal of the research process is to produce authentic knowledge that will directly benefit the participants and the program and/or community that is the focus of the case.
- The methods and techniques used are sensitive to the culture, history, emotional life, and language of the coresearcher (the participant/program/community). Consistent and persistent attempts are made to make the research activity inclusive to those participating at every step of the process. Project findings include the voices and interpretations of all collaborators.
- When combined with the cyclical, iterative processes of action research, participatory case studies incorporate concurrent and reciprocal levels of inquiry, observation, dialogue, and reflection with the traditional processes of case study research.
- All accounts and reports reflect the perceptions of all stakeholders and are written in clear, everyday language.

Values place a central and salient role in participatory research. Explicit values embedded in

this methodology are described in the following list.

- Knowledge production and its use are mutually owned and are democratic in nature.
- Research must benefit those who contributed to it; therefore, knowledge is to be used ethically and fairly.
- Researchers hold a deep appreciation for the human capacity to reflect, learn, and change.
 Participatory case researchers assume a strengths-based approach in which participants are encouraged to realize their potential by recognizing, using, and building on their own strengths and existing resources to accomplish their goals.
- There is an abiding commitment to social justice and nonviolent social change.
- Research partnerships and relationships are characterized by equality, dialogue, mutual respect, inclusivity, and collaboration.
- In a participatory framework, objectivity is not the gold standard; instead, critical subjectivity and reflexivity are valued.

Application

A participatory approach to case study research demands that a significant amount of time and energy be invested in creating research relationships. This includes time to explore individual and mutual perceptions, expectations, and biases around what is known and experienced with regard to the targeted issue. Collaborative drafting of the research hypotheses or questions is done, and clarifications of the overall objectives of the project are made. Ethical issues that may emerge from the research process are explicitly discussed, and any issues related to formal ethics clearance (a tribal council, community ethics review board, or an institutional review board) are talked about and resolved.

Decisions are then made collectively about the case study protocol: methodology, delineation and operationalization of the variables under investigation (if appropriate to the methodology), selection of the case study sites or profile of the participants to be recruited, sources of data, procedures for data collection, creation of the data collection instruments (e.g., interview protocol or questionnaire), logistics regarding implementation of the

research project (e.g., site visits and data management procedures), and projected modes of data analysis. At each and every step the research collaborators need to assess the skill and knowledge levels of the partners and provide scaffolded learning opportunities to gain whatever is lacking. There also may be times of considerable differences in approach or perspective, and these must be negotiated to everyone's satisfaction.

Collaboration during the analysis and dissemination phases is also crucial for the successful use of this participative method of case research. Meetings to outline the process of analysis and the procedures, or to generate code categories, codebooks, and code relationships (if using a qualitative methodology), not only allow the research partners to render these processes explicit but also create opportunities for more authentic interpretations.

If a research report is generated, this is done in such a way as to represent the perspectives of all the research partners and to be accessible to the community in general. This frequently takes the form of a presentation of the results or a performance as an alternate method of data representation that is open to the public.

Critical Summary

There are a number of challenges to carrying out participatory case research. It can be difficult to communicate with many participants/partners on an ongoing basis. However, this can be accomplished through newsletters, conference calls, frequent in-person meetings, and site visits. Because a fair amount of participatory case research is done with community groups, it can be a challenge to maintain the momentum of the project if there is a turnover in staff or a change in community leadership. Gaining a commitment to stick with the project is desirable, but not always feasible. When using a participatory case research methodology with multiple sites, it may be difficult to balance cross-site consistency with addressing questions that are of local interest and most salient to the participants. This can be accomplished by having a core set of questions and/or procedures but making space for local questions that may draw on the same or different methodologies. The most challenging dimension is the need to invest time in all phases of the research process and in the cultivation of relationships. In order to be a good listener and partner, researchers require emotional intelligence, a democratic personality, and the skills to build truly collaborative partnerships.

There are, however, substantial benefits to this approach. Researchers can gain greater insights into issues or programs and their community contexts by having an equal partner who provides the "insider" view and knowledge. Researchers report that more effective questions and procedures are developed because they are framed in the language and perspective of the people who live in the context. There also is a high level of commitment from the participants and the community to participate, and this translates into higher response rates. Researchers can have greater confidence in the interpretation of the data, because they are grounded in the participant/partner's authentic experiences. Last but not least, new relationships are formed, which contribute toward the betterment of individual and community life.

Participant benefits include an increased sense of personal and community agency, an improved quality of life as changes in the participants' social context take effect, positive development of knowledge and skills, leadership and relationship development, a sense of the whole and of community rather than isolation, and positive identity formation at an individual and collective level.

Rosemary C. Reilly

See also Action-Based Data Collection; Power/ Knowledge; Researcher–Participant Relationship

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PATRIARCHY

Literally the "rule of the father," *patriarchy* is a system of domination constructed on the basis of gender roles in which men generally are valued more highly and have more power than women. As the institutionalization of male power, patriarchy is maintained through the family, the polity, religion, the economy, and specific forms of sexuality and is reinforced through symbolic representation and language. Patriarchal societies predominate throughout the world; although they have some general elements in common, their particular characteristics vary by culture, economic context, and history.

Conceptual Overview and Discussion

Friedrich Engels associated the beginnings of patriarchy with the development of agriculture and private property. In order to ensure that their property would pass to their rightful heirs and to capture control of any economic surplus, men needed to be in command of women's sexuality and, implicitly, their labor. To this end, men established dominance within the family, household, and society, and they instituted patrilineal inheritance. This resulted in the female sex being subordinated to males, as women became servants of men and the vehicles for the production of workers and heirs. According to contemporary anthropologists and feminist scholars such as Gerda Lerner and Maria Mies, women themselves were the first property; they argue that patriarchy was established over millennia and that its origins date from the emergence of archaic states and militaries and the holding of slaves for agricultural labor.

Sylvia Walby argues that the *private patriarchy* of the agrarian family and social order has been largely replaced by the *public patriarchy* of the state and labor market in industrial societies. Contemporary forms of patriarchy are characterized by the concentration of power in the hands of men and in the institutions that support male

power. This restricts the opportunities for women to have power over men or other women. Where women do have power over other women, it tends to be in face-to-face situations, such as the private domestic context, or in other arenas that are designated as feminine. Contemporary patriarchy is also typified by the control of sexuality and reproduction, including compulsory heterosexuality, concerns with female chastity, constraints on reproductive freedom, and motherhood norms.

Patriarchy continues to depend upon a gendered division of labor in which women perform the bulk of domestic and community unpaid work. This unremunerated and largely uncounted labor undergirds and subsidizes the more public spheres of society and what is commonly referred to as production (although feminist scholars also point out that this is a patriarchal construct in that males are thus generally characterized as producers while women are cast as consumers). Women working in paid employment tend to work a double or triple day, retaining much of the responsibility for domestic work even as they work outside the household. Women are overrepresented in jobssometimes called pink-collar ghettos—that most resemble their domestic roles within the gendered division of labor and are underrepresented in the spheres of work that historically have been recognized as requiring higher levels of skill and that are well valued and remunerated. Although this divide has begun to break down in recent years, the transition is less than complete, as evidenced in particular by the relative absence of men in "traditional" women's work.

Patriarchy structures relations within genders as well as between them. Men's roles and identities are ordered in hierarchies in which hegemonic masculinity dominates subordinated forms of masculinity, along with women. Hegemonic masculinity provides the normative ideal to which men are to aspire; although hegemonic masculine characteristics may vary by society they tend to define the ideal man in terms of a narrow range of gendered attributes and practices. There is no form of femininity that is hegemonic to the same degree or in the same sense. Emphasized femininity, however, exaggerates gender difference as an adaptive response to male power. It conforms to gender inequality and stresses being compliant with men's needs and desires.

A patriarchal dividend results from the real privileges that men enjoy under patriarchy. Men get dividends from patriarchy, including status, prestige, power over others, and real material rewards. Patriarchy gives men some control over the labor power of women, which provides men with direct and indirect material benefits in a wide array of situations. Men do not gain equally from the patriarchal dividend, however. Patriarchy does not just divide men and women; men are also stratified in hierarchies. In addition to the hegemonic and dominated masculinities, status for both men and women may be awarded differentially according to age, racialized categories, and class. Patriarchal relations interact with and may reinforce or undermine other systems of inequality. Even dominated men may expect to receive certain advantages as they get older or to have privileges relative to those with darker skin. Some women may be relatively privileged compared with certain men as well as compared with many other women. Some women may also have expectations of rewards in their later years, especially if they satisfy patriarchal expectations or are affiliated with more powerful or affluent men. These mechanisms help to stabilize patriarchal domination.

Enduring controversies related to the conception of patriarchy concern the "system-ness" and "systematic-ness" of patriarchy as well as its relationship to capitalism. Is patriarchy a coherent system or structure, or is it a collection of social practices, norms, and values that happen to be contingently related, with asymmetrical gender power as their common feature? How is capitalism related to patriarchy? Does capitalism promote, shape, and dominate patriarchy, or does patriarchy pre-exist and shape capitalism? Or are these instead two interacting structures and systems that are not necessarily systematically related?

Application

Patriarchy can be viewed as an interconnected series of relationships that interpenetrate every aspect of social life and vary in type and degree across societies and history. For this reason, the case study and other methods of depth are particularly appropriate for investigating the nature and mechanisms of patriarchy, and also its effects. Despite its ubiquity and the general tendency for

public patriarchy to develop in complex, industrial societies, it would be a mistake to presume that patriarchal relationships evolve in a linear fashion. Some forms of (religious) fundamentalism may reflect the attempted reassertion of family patriarchy in reaction to the transformation of male power and control that has occurred in many societies, for example. The case study method can be employed to research patriarchy across a wide range of topics and geographical areas and scales. Many examples are possible, but two are presented here.

Hanna Herzog and Tahgreed Yahia-Younis use the case study to analyze local political processes among Palestinian Arabs in Israel. Using interviews and analyses of newspapers, they find that marginal men bargain with patriarchal power structures to work their way into the publicpolitical domain and preserve their patriarchal privileges vis-à-vis subsequently excluded women.

In a case study that uses the narratives and accounts of African women ex-combatants who fought in anticolonial wars, archival research of government documents and human rights organizations, and research on the psychological effects of military combat, Aronette White investigates Franz Fanon's conclusion that revolutionary violence is necessary to cleanse Africans of their colonial mentality. She suggests that Fanon was wrong, particularly because of his neglect of patriarchal culture, mentalities, and practices both before and during anticolonial war.

Researchers integrating the concept of patriarchy into case study methodologies generally adopt a feminist standpoint in order to illuminate patriarchal power relations, practices, discourses, and structures. The social processes that bestow privilege on particular groups of people often lead to those same privileges being visible only to those who are excluded or to those who adopt the standpoint of the subordinated group. The conceptual apparatus developed to analyze gendered power relations will need to be operationalized in each specific case, but it nevertheless provides a theoretical framework and language with which to expand understandings of the social workings of power in diverse contexts. Case studies can be points of entry into the ruling relations and institutions that construct patriarchal relations on the ground. The job of the feminist case study is to connect an analysis of everyday life with the institutions that shape that life. This implies building a critical understanding of patriarchy from the ground up.

Critical Summary

Patriarchy refers to structures of power that shape gender roles and relations and define the hierarchies between and within gender categories. Whereas some researchers view patriarchy as a totalizing system of control, others see patriarchy as consisting of partial structures and practices replete with contradictions and gaps. Either way, integrating the concept of patriarchy into research requires that we render visible that which is often invisible. Although patriarchal cultures and social arrangements frequently have been naturalized (explained as biologically based phenomena), they should instead be understood as socially constituted features of power relations.

JoAnn Jaffe

See also Class Analysis; Families; Gendering; Institutional Ethnography; Masculinity and Femininity; Power; Power/Knowledge; Radical Feminism; Sexuality; Socialist Feminism; Standpoint Analysis

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PATTERN MATCHING

Pattern matching is the comparison of two patterns to determine whether they match (i.e., that they are the same) or do not match (i.e., that they differ). Pattern matching is the core procedure of theory-testing with cases. Testing consists of matching an observed pattern (a pattern of measured values) with an expected pattern (a hypothesis) and deciding whether these patterns match (resulting in a confirmation of the hypothesis) or do not match (resulting in a disconfirmation). Essential to pattern matching (as opposed to pattern recognition, a procedure by which theory is built) is that the expected pattern is precisely specified before the matching takes place.

Conceptual Overview and Discussion

The Concept of Pattern Matching

A pattern is any arrangement of objects or entities. The term arrangement indicates that a pattern is nonrandom. Theories predict some pattern of values of variables. Such predictions are usually called *hypotheses*. The term expected pattern will be used here for specifications of the hypothesis that allow for a rigorous comparison with an observed pattern of values of variables in a test.

Donald T. Campbell coined the term *pattern identification* as a characteristic of qualitative analysis that he defined as *holistic* (i.e., analyzing the pattern) rather than *atomistic* (i.e., analyzing its constituents). He argued that the single case study design could provide for a strong test of a theory if an entire set of expectations deduced from that theory (which together would constitute an expected pattern) could be shown to be true in that case. Campbell also called this a *configurational approach*. He insisted that qualitative analysis in this design tends to disconfirm rather than

confirm a prior belief because of the requirement that, in the test, each separate element of a pattern or configuration that is observed is exactly as expected. As noted by Thomas D. Cook and Donald T. Campbell, the strength of this non-equivalent, dependent variables design is precisely that the variables that constitute the pattern or configuration are nonequivalent, that is, not substitutable.

Yin's Approach to Pattern Matching

Robert Yin discussed pattern matching as the most desirable analytic strategy in case study research. He identified two main types of pattern matching in theory-testing: (1) the pattern in a nonequivalent dependent variables design (in which the initially predicted value must be found for each element of a pattern of dependent variables) and (2) the pattern in a nonequivalent *inde*pendent variables design. An example of the latter is a pattern derived from a typological or configurational theory in management. Yin stated that pattern matching in the *dependent* variables design should be rigorous, such that the hypothesis is disconfirmed even if only one variable of the pattern does not behave as predicted. For the *independent* variables design, however, he recommended a different approach. Yin stated that one should formulate different expected patterns of independent variables, each based on a different and mutually exclusive (rival) theory, and that the concern of the case study would be to determine which of the rival patterns has the largest overlap with the observed one. An additional complication in this approach is that Yin presented some examples in which the rival pattern represents not a real (theoretical) explanation but rather a version of a null hypothesis.

Application

Independent Variable Designs

Campbell's and Yin's approaches to pattern matching are implicitly limited to the testing of propositions about characteristics of single cases (which can be tested in single cases) and not about differences between cases (see the Theory-Testing With Cases entry, this volume). Expected and observed patterns, therefore, consist of values of

variables that all pertain to the single case. The simplest type of an independent variable pattern consists of the expected value of only one independent variable (rather than of a number of variables), given the value of a dependent variable. There are only two propositions on which such single-point expected patterns can be based: (1) necessary condition propositions and (2) sufficient condition propositions.

Necessary condition propositions state that an Outcome Y is possible only if Condition X is present. To test such a proposition, a case must be selected in which Outcome Y is present. The expected pattern is: X is present. (Note that the proposition does not entail any prediction about conditions of the absence of Y.) The researcher observes whether X is present in the selected case. The observed pattern is either that X is present or that X is absent. Pattern matching in this case consists of checking what the value of X is in the observed pattern.

Sufficient condition propositions state that an Outcome Y is always present when Condition X is present. To test such a proposition, a case must be selected in which Outcome Y is absent. (Note that the proposition does not entail any prediction about conditions of the presence of Y.) The expected pattern is: X is absent. Pattern matching in this case consists of checking what the value of X is in the observed pattern.

Configurational theories usually specify a number of conditions that together (i.e., in a configuration) must be present for an outcome to exist. If a configuration consists of, say, four elements, these can be seen as four separate necessary conditions. Four single-point independent variable patterns could be specified and tested as just described for the necessary condition proposition, but it is also possible to specify a single four-point pattern (e.g., [A+/B+/C+/D+]) that is expected to be observed in a case in which the outcome is present. The observed and the expected patterns do not match if any of the four variables is absent and, in such a case, the hypothesis is disconfirmed.

Process theories are a type of configurational theory in which not only the presence of a number of conditions is specified but also their temporal order. The expected pattern in a case in which Y is present is, for instance, $[A+ \rightarrow B+ \rightarrow C+ \rightarrow D+]$. The observed pattern must reflect the temporal

order in which Conditions A, B, C, and D occurred (if at all), and a match is confirmed only if A, B, C, and D have the same temporal place in the expected and the observed pattern.

Dependent Variable Designs

Similar to independent variable designs, the simplest type of a pattern in a dependent variable design consists of the expected value of only one dependent variable, given the value of an independent variable. Here also, such single-point expected patterns can only be based on a necessary condition proposition or a sufficient condition proposition. To test a necessary condition proposition in a dependent variable design, a case must be selected in which Condition X is absent. The expected pattern is: Y is absent. Pattern matching in this case consists of checking whether Outcome Y is absent in the observed pattern. To test a sufficient condition proposition in a dependent variable design, a case must be selected in which Condition X is present. Pattern matching in this case consists of checking whether Outcome Y is present in the observed pattern.

As mentioned earlier, Campbell used the term configuration for a pattern of dependent variables. Pattern matching with a configuration of dependent variables in a case in which Condition X is present consists of checking whether each of the dependent variables has the expected value. If a temporal order is expected in the configuration of dependent variables, then pattern matching additionally consists of checking whether the observed outcomes have occurred in the expected order.

However, dependent variable single case study designs are relatively rare in practice because most theorists and researchers, even those who adhere to necessary condition hypotheses (i.e., those who believe in constraints on outcomes that can be theorized and tested), do not believe that sufficient conditions are credible in the social sciences. Most researchers frame the outcomes that follow certain conditions as (more) likely rather than as inevitable. The dependent variable designs discussed so far cannot be used for testing probabilistic propositions. However, pattern matching can also be used as a testing procedure in a sample case study design (see the Theory-Testing With Cases entry, this volume).

Critical Summary

Every hypothesis derived from a proposition can be formulated as an *expected pattern*, which specifies the values of one or more variables (either independent or dependent) that should be observed in a case (or a sample) if the hypothesis is true. Pattern matching, therefore, is the core procedure in every theory-testing study.

Tony Hak and Jan Dul

See also Process Tracing; Processual Case Research; Prospective Case Study; Qualitative Comparative Analysis; Replication; Theory-Building With Cases; Theory-Testing With Cases

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PEDAGOGY AND CASE STUDY

In some ways, case studies have always been used to make arguments about the best way to structure educational experience and to transmit knowledge across generations. The idea that a particular case might be used to demonstrate foundational principles about teaching, learning, and the organization of educational systems in a given society is an intellectual technique that has a long pedigree. Plato's *Republic*, for instance, contains a utopian model for pedagogy in an ideal society. Similarly, texts as diverse as Rousseau's

Emile and Aldous Huxley's Island contain detailed case-based descriptions of ideal pedagogical experiments. Until the latter part of the 19th century, though, these speculative studies formed part of an approach to pedagogy that developed pedagogical systems from ethical or moral first principles. The more self-conscious formalized case study surfaced more formally in the child study movement, which itself has developed into various subdisciplines in psychology, curriculum studies, the sociology of education, and the wide variety of forms of educational inquiry that exist today. In recent decades, the case study has been at the center of the action research movement as professional practitioners seek to understand and improve their own practice.

Conceptual Overview and Discussion

The increasing popularity of the case study method in education also mirrors the rise of qualitative sociology and social psychology. As philosophers and social theorists began to question both the classical traditions in pedagogical thought and the abstract empiricism of positivistic social science more generally, qualitative and necessarily casebased approaches to the study of social and educational phenomena began to gain ground. These methodological spaces opened up out of phenomenology and pragmatism as philosophical currents in Europe and the United States, respectively, and are still struggling for legitimacy and respectability with other forms of social research methodology founded on high-status research practices in the natural sciences. In the latter half of the 20th century in particular, the philosophical currents of phenomenology and pragmatism have been critiqued and enhanced by theoretical work coming out of diverse and varied positions that each argue for a return to microanalysis. These currents include, for example, structuralism, poststructuralism, feminism, postmodernism, critical race theory, critical geography, postcolonialism, indigenous knowledge, and ecopedagogy.

Application

With its emphasis on the structure of cognition the field of developmental psychology, pioneered by G. Stanley Hall in the United States and developed

most notably by Jean Piaget in Europe, focused on close observation of children in learning situations. From the latter decades of the 19th century the broadly defined child study movement sought to learn about learning from learners themselves, replacing an exclusive emphasis on the kinds of pedagogical content that supported the formation of particular kinds of religious, civic, and social consciousness. It became clear from Hall's early work, for instance, that many assumptions about what children know and how they think were quite erroneous. What is significant from the point of view of the case study method is that structuralist theory allowed developmental psychologists such as Piaget to argue that the cognitive processes exhibited by children at different developmental stages were essentially universal; therefore, case studies of small numbers of children could provide insight into the structure of cognition.

One of Hall's disciples, John Dewey, continued and developed his work with specifically pedagogical applications through a series of microinvestigations of classroom and school practice. Dewey's laboratory school in Chicago, which operated between 1904 and 1907, represented an ongoing case study of life in a school from which principles of sound pedagogical practice might be both derived and implemented. Dewey's laboratory school has provided the foundation for numerous experimental and laboratory schools that typically operate near teacher education institutions, as did Piaget and Lev Vygotsky's focused close observations of children's development and learning processes in Europe.

In sociology, the case study rose to prominence in North America through the work of what was called the Chicago School at the University of Chicago. From the early 1920s, significant work in the Department of Sociology used qualitative anthropological and ethnographic methods to conduct a wide range of studies of life in the city. These studies reflected the influence of both phenomenology and pragmatism and a general critical attitude toward abstracted empirical studies of social phenomena. The problems of adjustment and integration in the overcrowded and diverse American cities of the late 19th and early 20th centuries appealed to members of the Chicago School such as Nels Anderson; Robert Park; G. H. Mead; W. I. Thomas; Florian Zanecki; Earnest Burgess; and, later, Everett Hughes and his student Herbert Blumer, who named and developed this work theoretically under the name *symbolic interactionism*.

Symbolic interactionism focused on, following the body of thought associated with phenomenology and pragmatism, human subjects as symbol users and meaning-makers. The argument at its most general level is that quantitative sociology, which is designed along the lines of natural science inquiry, fails to adequately understand and account for human consciousness and ends up treating human agency as though it were a product of social forces that operate behind the subject's back. In this view, agency is treated as a response to social forces, and human actors become what C. Wright Mills called "cheerful robots" or what Harold Garfinkel called "cultural dupes." The symbolic interactionists argued that macrosurvey analysis and abstract theoretical work (epitomized at the time in the United States by the work of Talcott Parsons) both miss the real action, which is at the level of meaningful and skillful yet ordinary human interaction. This emphasis led its practitioners to favor small-scale qualitative studies, which were mostly case studies, and a form of theory-building that operated from the ground up (e.g., Barney Glaser and Anselm Strauss's Grounded Theory), developing theoretical propositions out of close observations of micro-interactions.

In education, the influence of developmental psychology, inspired by the work of Hall, Piaget, Dewey, and others, has for more than a century established the case study as a legitimate and important way to generate knowledge about normal and abnormal child development; the placement and sorting of children for instruction; various pedagogical programs, techniques, and interventions; classroom organization; and a wide variety of other aspects of teaching and learning. This work continues, and until the later decades of the 20th century it served as the bread and butter of education as a discipline. The idea that scholars learn about learning by observing children in both formal and informal educational situations has placed the case study at the center of research in education. Although large-scale statistical studies of systemic performance and predictors of academic success have also flourished, these are studies of education as opposed to studies in education. Education is, in the end, a fundamentally pragmatic discipline in which good research is generally understood to contribute to practice.

Critical Summary

The question, however, remains: What is the best way to improve teaching practice and student learning? The answer to this question is inevitably political. One type of answer is to develop a set of generic strategies that can be shown to improve the performance of large numbers of teachers and ultimately of students. This is essentially the approach taken by the No Child Left Behind initiative in the United States or the National Curriculum in Great Britain. The central idea is that the standardization of practice along the lines of best practices or science-based understandings of how teaching and learning are most effectively accomplished will best improve practice. The centralized approach described here views the diverse practice of individual teachers in diverse contexts as the problem to be solved. It also generally treats teacher knowledge as relevant only to the extent that it fits the curricular and pedagogical model practice, which is itself formed out of what are understood to be science-based best practices.

Another answer to the question, though, is that the best way to improve teaching practice and student learning is to focus on and enhance the quality of every teacher's situated professional knowledge. In this view, every teaching situation indeed, every teacher and every student—is different, and there is no reasonable and productive way to standardize knowledge about teaching and learning. In fact, when standardization comes to dictate the educational policy and reform agenda the nature of teacher professionalism changes and is diminished. Teachers are alienated from their work and deprofessionalized, relegating most significant pedagogical and curriculum decisions to experts. In this view, teachers become functionaries for state-controlled programs. Students become test-takers continually accounting for what they have learned to distant others on standardized assessments. Proponents of the "teacher as researcher" movement, which is itself a part of the action research movement in professional practice, argue that practitioners themselves must become active critical researchers constantly examining and critiquing their own practice and that of their

community of peers. In other words, one's own practice and the practice of one's peers become an ongoing case study aimed at improving a situated professional practice.

It is easy to see how in each of the two frames just described that power is concentrated differently. In the first instance, power is centralized in state bureaucracies and administrative structures; in the latter case, power is devolved to the individual practitioner. Not surprisingly, teachers' and nurses' associations have embraced the idea of professional learning communities and practitioner research as a way to enhance professional status.

The case study method has also been influential in preservice professional education, where problembased learning, tutorial classroom structures, cooperative learning, and case studies are being used extensively and successfully. Learning to be a professional is a complex business that is now thought to be best supported and accomplished not by intensive lecturing and disconnected abstract tasks, such as the traditional paper-and-pencil test, but through pragmatic, hands-on engagement with problems that are authentic or that at least simulate real-life problem situations. One important way to engage students in complex learning and authentic problem solving is through the use of the case study, and professional learning programs, such as medical education, have moved significantly in this direction, following ground-breaking programs like the one at McMaster University Medical School in Hamilton, Ontario, Canada.

The critique of the symbolic interactionists articulated earlier in this entry was relatively slow to make its way into educational research, but by the 1970s there had emerged a number of qualitative studies of literacy and language pedagogy and of classroom and school practice more generally. The work of interpretive sociologists of education Douglas Barnes and Margaret Meek-Spencer in the United Kingdom, along with literacy theorists such as Don Holdaway and Marie Clay in New Zealand and Ken and Yetta Goodman, Jerome Harsty, and Lucy Calkins in the United States, used classroom-based case studies to explore the process of how children develop as readers, writers, and speakers. In important respects, these studies began to bridge the gap between universitybased theorists and school-based practitioners in a way that treated teachers as knowledge producers

rather than as consumers of academic knowledge. By the 1980s, what came to be called the *Effective* School Movement, influenced in particular by the large multiple-school case studies of John Goodlad (A Place Called School; Goodlad, 1984/2004) in the United States and Michael Rutter (Fifteen Thousand Hours: Secondary Schools and Their Effects on Children; Rutter, Maughan, Mortimore, & Ouston, 1982) in the United Kingdom began to encourage a form of school-based professional development. This approach to professional development focused on turning individual schools into ongoing internal case studies/action research projects in themselves. This movement effectively took case study methods and applied them directly to reflective professional practice.

In more recent decades, a variety of theoretically and methodologically sophisticated case studies have explored both pragmatic pedagogical problems as well as broader concerns around gender and education, bullying, race and education, and other key problem areas. Since the 1950s, it has become clear that persistent sociological findings with regard to the persistence of social class, race, and gender are significant social determinants and the best statistical predictors of educational outcomes. These quantitative "black box" studies of formal education essentially demonstrate how the statistical child enters the box with a particular set of social characteristics and is processed out the other end as an adult who tends to bear many of the social characteristics with which he or she entered school, yet how the black box manages to reproduce social advantage and disadvantage is not addressed by quantitative studies. This problem has led to considerable interest in what goes on inside the black box. Some of these studies are the kind of research in education described in the previous paragraph, studies aimed specifically at improving pedagogical practice, whereas others have been intended to influence policy or simply to increase knowledge about the actual working of schools.

In the sociology of education, the 1970s marked the beginning of the movement toward using case studies to explore the dynamics of classroom and school interactions as well as the interaction between particular schools and their communities. Many of these studies have taken a critical turn, partly in response to the persistent bad news of the black box studies and partly as a result of theoretical developments in educational research and the introduction of critical, feminist, post-colonial, critical race, and poststructural theorizing into the previously functionalist space of educational thought. Early ethnographic case study work by Stuart Hall and Paul Wills in the 1970s took an approach that was informed by Marxist theory, for example, to examine the way social class is reproduced in schools through the active participation of members of dominated groups.

Apart from these kinds of studies, case studies are also used widely to evaluate particular programs and policies as well as pragmatic interventions in classrooms and schools. The case study has proven a valuable and rich way to investigate particular educational contexts and improve professional practice. Case studies have also provided critical insight into the difficult-to-understand microprocesses in schools that have tended to produce relatively predictable results discovered by macrostudies. As such, case studies straddle the complementary yet often-opposed worlds of mundane social interaction and the large-scale sociological study or structural theory.

Michael Corbett

See also Chicago School; Critical Theory; Grounded Theory; Reflexivity; Symbolic Interactionism

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Performativity

Performativity is a concept used in two different ways in relation to research. First, *performativity* refers to the performance, or "doing" of research, and second, it refers to repeatedly performing norms or prescriptions that guide and regulate research and constitute individuals. In the former function, performativity is a performance in which prior subjects, such as researcher and participants, act. In the latter function there is no subject that precedes action, only subjects and actions that simultaneously constitute each other.

Conceptual Overview and Discussion

On the one hand, research, as with other forms of social life, is a performance. The researcher as an active, conscious, prior, and performing self conducts or performs research. Performance is the engagement between individual(s) and audience(s). Individuals perform for audiences, who interpret their actions.

Research is akin to a theatrical performance, and just as theater can be indistinguishable from everyday life so too are the methods of case study research not always clearly delineated from the happenings of the everyday. For example, it is not always clear to the researcher when he or she is doing field work. In participant observation the researcher hangs out, talks with, listens to, and engages with others in the types of activities in which they normally participate every day. In addition, the researcher is simultaneously participant and observer, actor and spectator. This blurring of boundaries between the observed and the observer is resolved for, and by, researchers in their ontological and epistemological grounding in the research methodology that governs them. The researcher is expected to behave in prescribed ways (to know what to research and how to conduct research) to maintain the ethical integrity of the study, thus distinguishing them from participants who are not so governed.

As performance, improvisation of the research design occurs during the activity of research. Similar to a drama script, there are elements that cannot be known ahead of time and accounted for. Various aspects of research, such as the number of

participants or the questions in the interview schedule, are adjusted and improvised fluidly and flexibly to fit the needs of the research design and/ or the interactive performances between researcher and participants. Participants emerge in the performance as a participating audience that then engages, acts and observes in interaction with the researcher. A foundational ontology and epistemology establish researcher and participants as subjects prior to their performance.

Although research can be thought of as a performance, and case study as a particular type of performance, another view of performativity is that it is not a performance willed by the researcher as actor; instead, performance is the reiteration of norms that precede and exceed as well as constrain both researcher and participant and the process of case study research itself. The end product of the case study and the identity of researcher and participant are produced by (and are effects of) regulatory prescription. In the process of doing research, both researcher and participants are created.

The performance of research in this view is based on well-established norms or rules that prescribe how case study research is to be done. In doing case study research, from the design stage, to the development of instruments, to collecting and analyzing data, to the final product, the researcher cites and reiterates the prescribed ways of doing research. The repetition of norms echoes prior prescriptive actions, accumulates authority, and draws upon and covers over the conventions that mobilize it. The underlying actions and decisions that inform the "doing" of case study research, the norms that precede and exceed, remain implicit and taken for granted, and they are brought to conscious thought and made explicit by the researcher only when a challenge, such as something outside the usual, requires the researcher to think about the processes completed or previous case studies. Prescribed ways of doing a specific type of research, such as a case study, exist prior to researchers beginning their study and continue to exist long after the study is completed. Not only do norms precede and exceed, but they also constrain the researcher, requiring that the research be conducted in specific ways. It is this iterative performativity that gives case study research its rigor, reliability, and validity.

The practice of case study research signifies researchers and participants as specific identities. The performance of research is not a willed act. It is not a performance that the researcher and participants, as already constituted subjects, perform according to the prescriptions of case study research (e.g., as social actors in the context of a research interview or participant observation). No actor exists before the repetition of norms; no subject enacts the citation of norms. To perceive performativity as mere performance is a mistake. The practice of case study research signifies (inscribes) researcher and participant at that moment in time that the norms of research are repeated. Researcher and participant are created/constituted at the same time as they iteratively enact that by which they are named. Researcher and participant are an effect, a product, of the norms that regulate case study research. The identities of researcher and participant are not internalized, fixed, or stable but are flexible, always in process, and change according to the situation.

Performativity is an almost compulsory performance of norms that prescribe how to do case study research. To err too far from the prescription will result in sanctions for the researcher and skepticism of his or her findings. The norms of case study research, as with other forms of research, must be repeated and repeatable in order to work. The repeatability presupposes that the formula itself continues to work in successive contexts and is transferable from one context (case study) to another. Yet within the repetition, variation in the constituting norms is possible.

The product of case study research, a report or publication, enters the field of discourses on that particular topic. As a discourse, it is performative. The discourse becomes part of what and how people know about that topic and about themselves; in other words, the report or article is an epistemology. As an epistemology, the report or publication has a signifying effect, constituting subjects.

Application

Quetzil E. Castañeda describes the performativity of field work as invisible theater. Field work is a performance; the researcher does (performs) research. Akin to actors in a play, the researcher's script (research design and problem of interest) is staged (research methods) in a continuous and fluid manner that includes improvising to adapt to changing circumstances and the needs of the research design. Questions the researcher asks and explores with participants trigger responses just as dramatic scripts trigger an audience response. These performative aspects of research remain largely invisible to both researcher and participants.

Although not fully rejecting research as theatrical performance, Nicky Gregson and Gillian Rose suggest in their study of car-boot sales (an alternative form of shopping medium; a British market where independent individuals gather to sell garden and household goods) that discourses cite already-established knowledge and thus produce subjects as they are cited. Performance is a component of performativity; citational practices enable and discipline both subjects and performances. It is the performance that provides the scope for slippage in the reiteration of norms as well as simultaneously producing a space within which subject and action occur.

Not all discourses are performative. Sara Ahmed's examination of institutional texts suggests that, as discourses, texts may not always bring about the effects they name. The conditions necessary to do so may not be in place. Texts, such as research reports, may be nonperformative, their reiteration and signification nonexistent because dissemination and follow-up programs have not been put in place.

Critical Summary

Performativity as performance demands a foundational ontology and epistemology that assume a subject prior to the act of performing. Performativity as signification takes ontology and epistemology as possible, contingent, signifying practices whereby subject and action are simultaneously constituted.

B. Raewyn Bassett

See also Iterative

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Personality Tests

Personality testing is a clinical procedure that involves administering standardized tests to patients in order to evaluate their mental health, personality structure, and other psychological issues of interest. Formal personality tests are empirically derived from extensive field research and validation studies. The term standardized simply means that the tests are administered under a specific set of circumstances (e.g., quiet room free of distractions) to a specific type of patient (e.g., an alert, Englishspeaking adult). It is by virtue of these standardized administration procedures and their extensive research base that personality tests are able to provide a relatively unbiased and objective portrait of a patient's mental health and general psychological makeup. Thus, for example, a properly administered psychological test can indicate whether a patient is depressed and whether his or her depression is being fueled by assertiveness deficits.

Many different types of personality tests exist. For the purpose of this discussion, however, the focus is restricted to objective personality tests. Objective personality tests intentionally limit a patient's responses so that his or her test results can be directly compared with those of a similar person responding to the same questions under the same conditions. Objective personality tests are among the most thoroughly researched assessment instruments.

Conceptual Overview and Discussion

Personality tests provide an objective anchor for mental health evaluations or research that focuses on mental health issues. Conceptually, personality tests are based on the psychometric method. In brief, the psychometric method seeks to measure psychological variables and then relates these measurements to other psychological variables or observable behaviors. For example, depression can be measured and then examined for its relationship to other mental illnesses or to an observable behavior such as social withdrawal. With these results in hand, clinicians and researchers can better understand the illness of depression and how it achieves behavioral expression. Similarly, aggressiveness can be measured with a standardized test and the results can be compared with a population average to empirically determine whether the individual being assessed is more or less aggressive than the "average" person.

Within the context of formal personality testing the population average referred to earlier is inferred from the *normative sample* that underpins a test. The normative sample is a group of individuals who are selected to statistically reflect a desired population. For example, the normative sample of a test can be assembled so that the final group reflects the entire U.S. population along important demographic variables such as age, sex, and education. A normative sample of this sort would provide information about how similar or different the person being tested is from the average person. Normative samples can also be assembled to reflect more specific populations. Normative samples, therefore, provide a reference for comparison of individual test scores. The characteristics of the normative sample will determine how a test can be used. Thus, for example, a test that is normed entirely on a criminal population cannot be used to assess a noncriminal patient in a hospital setting.

A personality test—indeed, any test—must first and foremost be valid and reliable. A valid and reliable test measures what it is supposed to measure in a consistent manner. A test of depression, for instance, must actually measure the extent of a patient's depression, and the measurement should not fluctuate randomly each time the patient is tested. As a simpler example, consider the case of a 12-inch ruler as a test of length. Regardless of the number of times an object is measured with this ruler, the result will not vary. This ruler is, therefore, a valid and reliable measurement of length,

because it provides consistent information about the length of an object.

Beyond validity and reliability, the evaluation of personality tests becomes quite complex and involves various statistical indices. Because thorough discussion of these complicated statistical indices is beyond the scope of this entry, I limit my review to the evaluative indices that are most relevant in applied clinical settings. Readers who are interested in pursuing this topic in greater depth can find relevant references in the Further Readings section at the end of this entry.

In addition to being reliable and valid, personality tests that are used in applied clinical settings must also demonstrate adequate sensitivity and specificity. Sensitivity refers to a test's ability to correctly identify a patient with the condition of interest (e.g., depression). Sensitivity can also be thought of as the test's "hit rate." Specificity, on the other hand, refers to the probability of correctly identifying a patient who is not ill (i.e., the correct rejection rate). Together, sensitivity and specificity are used to evaluate how efficiently a test will distinguish between patients who are ill and those who are not. The ability to reliably make this distinction is obviously critical.

Although it is important to establish the sensitivity and specificity of a test before it can be used in an applied context, these indices are concerned with test accuracy at a group level. In other words, these indices evaluate how accurately a test can sort a group of people into ill and not-ill categories. In applied settings, however, clinicians are more concerned with diagnostic accuracy and other decisions that occur at the level of the individual. Within the context of the individual patient the predictive power of a test is much more immediately relevant than its ability to effectively sort through groups of patients. The predictive power of a test is determined by formulas that include consideration of the base rates (prevalence) of a disorder as well as the sensitivity and specificity of the test being evaluated. Positive predictive power is the probability that an individual with a positive test result will have the condition of interest, and negative predictive power is the probability that a patient with a negative test result does not have the condition of interest. Thus, for instance, a predictive power of .80 indicates an 80% probability that a patient with a positive test result will have the condition of interest. Predictive power of less than 50% indicates that diagnoses will, more often than not, be incorrect.

Application

Objective personality tests are widely accepted and have found their way into industry, the healthcare system, and the legal system. In industry, psychological tests are relied upon for employee screening and to match employee strengths to specific job requirements. In healthcare, formal personality testing is a cost-effective procedure that reduces the danger of interviewer bias and provides results that are as robust as those produced by much more expensive medical procedures, such as magnetic resonance imaging. Formal personality testing is also able to provide a much more nuanced understanding of patient issues than is typically obtainable by interview alone. The case study by Nesca and colleagues, for example, provides valuable insight regarding the psychological makeup of a female psychopath. Reliable, nuanced insights of this sort are not possible without the assistance of personality testing. The ability to attach an empirically derived conditional probability to a diagnosis also represents a significant improvement over the subjective diagnostic procedures that predated the advent of formal psychological testing.

In forensic settings, personality testing adds rigor and objectivity to court proceedings that were previously vulnerable to undue influence by unscrupulous experts. Psychological testing also offers the added advantage of being able to empirically speak to the possibility that a defendant is feigning mental illness. The ability to say, with a specified level of confidence, that a defendant is or is not feigning mental illness, presumably to avoid punishment for his or her crime, is often critical in court proceedings when the insanity issue is raised. It is usually impossible to address the issue of malingering (feigned mental illness) with any degree of professional certainty absent the assistance of formal testing.

Critical Summary

The emergence and subsequent widespread adoption of objective personality testing are watershed developments in the field of mental health. These

developments marked a decisive shift away from mental health evaluations as an unreliable "art form" that depended heavily on the skills of individual clinicians to an empirically informed process supported by test results with a validity similar to that of much more costly medical tests. Reliance on objective psychological testing has grown to the point that one is hard pressed to locate a major mental health unit in North America that does not employ a consulting psychologist to oversee testing of patients. Similarly, forensic mental health has increasingly become synonymous with forensic psychology as the courts have come to depend heavily on the objective information provided by formal personality testing.

Marc Nesca

See also Case Study Research in Psychology; Decision Making Under Uncertainty; Diagnostic Case Study Research; Reliability; Validity

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PHENOMENOLOGY

There are many different ways in which the term *phenomenology* is understood in philosophy, the other humanities and arts, and social science. A short definition is that phenomenology is a general

methodology that emphasizes studying empirical phenomena directly, as they are perceived by the senses. A key element of that definition involves the implicit critique of philosophical schools of thought that postulate some universal attributes that are considered essential and not immediately accessible to sight, hearing, taste, touch, or smell. The contemporary emphasis within social phenomenology is the attempt to comprehend or fully understand (verstehen) the everyday lived experience of ordinary people living relatively normal lives. Phenomenology is not primarily a method, vet it is important as a technique for interpretive case study research in many different ways and at many different levels, including the sociological approaches called ethnomethodology and conversation analysis.

Conceptual Overview and Discussion

Originally, phenomenology was primarily an epistemological viewpoint, but many thinkers have moved away from viewing it solely as a theory of knowledge. Much of the emphasis within phenomenology is the attempt to comprehend or fully "understand" (verstehen) the everyday lived experience of ordinary people who live relatively normal lives. Nevertheless, phenomenology is important for interpretive case study research in many different ways and at many different levels. To some extent, any qualitative research study that emphasizes detailed description can be said to be phenomenological in the broad sense of the term. Qualitative case study research is often considered phenomenological in the sense that it is concerned with very detailed descriptions (idiographic) and generalizations concerning those aspects of social reality that can be observed directly. The basic idea is that "seeing is believing." To some extent, phenomenology is a qualitative empirical approach that attempts to go beyond simplistic British empiricism based on John Locke and David Hume. Sometimes a phenomenological approach to the single case is contrasted with other qualitative research strategies, such as symbolic interactionism. Ethnomethodology is often thought of as a kind of blend of phenomenological sociology, associated with Alfred Schutz, and symbolic interactionist sociology, first developed philosophically by George Herbert Mead. Mead did not coin the

phrase *symbolic interaction*, but it is well recognized that the different versions of symbolic interactionism stem from Mead's philosophical views. To grasp the reason for multiple different meanings attached to the word *phenomenology* it is necessary to examine some aspects of the history of philosophy.

Ancient Philosophical Roots

For most of human history, the idea of phenomenology would not have been accepted. The word is rooted in Ancient Greek thinking, but it had a different meaning before the 18th century. It is often repeated that western European philosophy is a set of footnotes to the ideas enunciated by Socrates, Plato, Aristotle, and those of whom they were critical, particularly the Sophists. A limited group of Ancient Greek thinkers rejected popular theological assumptions. They looked for explanations of natural phenomena in the everyday world. The root of the word derives from the Greek phainomenon and logos and literally means "the systematic study of appearances." However, the Ancient Greeks had a different perspective on appearances than we have had since the Enlightenment. Today, we make a sharp distinction between perception and reality in a way that the Ancient Greeks did not. They felt that we can grasp ultimate reality on the basis of appearances if we dig deep enough and fully understand the true nature of appearances.

Modernity and Enlightenment

It was not until the rise of "modernity" in the 16th and 17th centuries that thinkers made a clear distinction between metaphysical reality on the one hand and philosophical and scientific truths concerning that which appears directly to the senses on the other. There are early signs of impending transformation, but the real beginning of modern thought is in the Radical Enlightenment of the 17th century. Each nation—state had a somewhat different experience of the Enlightenment, and there are major differences between Enlightenment philosophers such as John Locke and René Descartes. Nevertheless, most commentators believe that the European Enlightenment represents a major transformation, particularly

concerning the utility of metaphysics in theology. Although many were far from empiricism in the restricted sense, Enlightenment thinkers rejected many forms of theological dogma in favor of various kinds of empirical inquiry. The Protestant Reformation was a major contributory factor because it involved a loosening of ideas characteristic of the Roman Catholic Church in the late Middle Ages, particularly Scholasticism in philosophy. Before the Reformation and the Enlightenment there were incipient aspects of what we now call modernity in various reactions to dogmatic theories enunciated by theologians. Before there was a Lutheran Church (or, strictly speaking, denomination), for example, Martin Luther made important modifications in Roman Catholic Church dogma that opened the door for radical changes in what we would consider philosophy today. That is even more true of John Calvin. The combined influence of reactions to Lutheran and Calvinist ideas opened the door to even more radical views. Even then, it was not until the late 18th century that the final break was made with ancient ways of thinking about the underlying nature of reality and the role of metaphysics in true knowledge. Regardless of whether thinkers were religious, they tended to view reality through metaphysical lenses. Metaphysics and not "physics" (i.e., natural philosophy, or "science") was primary. That is one reason philosophy was not regarded as a separate discipline. It was relegated to preliminary studies, a set of preliminary exercises (propaedeutic) to theology.

Kant and Phenomenology

Immanuel Kant made a clear distinction between those aspects of reality we can investigate scientifically through the use of the five senses and those underlying ontological aspects of reality that are not directly available to observation. That which cannot be studied scientifically is the spiritual, or *noumena*, which is fundamental to the underlying nature of reality but can never be fully grasped by human beings. The noumenal (also spelled *numinal*) is ultimate, but there will always be a gap between the noumenal and the perceptions. Kant called the underlying nature of reality the *thing-initself* (*ding-an-sich*). Human beings do not have direct access to the noumenal thing-in-itself; we

have to rely on our senses to investigate phenomenological appearances.

Hence, in a way, according to Kant, all science is "phenomenological." All modern scientific disciplines study phenomena and not the noumenal, and today most thinkers regard theology as outside of science. He restricted science and all disciplined, empirically based knowledge (wissenschaften), to the study of phenomena. It clearly has many implications for psychology and social psychology. His mature theory of ethics and morals (axiology) is also very closely aligned with fundamental assumptions that he makes about human beings (philosophical anthropology) and practical activities (pragmatism in the classical sense).

Edmund Husserl

Like many mathematicians, Edmund Husserl was concerned with epistemological issues. Starting with Kantian and Hegelian assumptions, Husserl established what is currently the standard philosophical usage of the term epistemological. It is not, however, the standard usage in social science. Yet, despite misappropriations of his specific usage, the modern and postmodern use of the term cannot be disassociated from Husserl's thought. Husserl accepted aspects of Kantian philosophy but tried to argue that nevertheless we can practice what he called eidetic reflection (visualizing the form or pattern of something). Such thought requires eidetic reduction (understanding the most basic element or essence of a phenomenon). Husserl argued that after performing an eidetic reduction it is possible to see the interconnections among "essences" using intuition. The mathematician who considers modal logic (rather than Aristotelian logic) would be an example of such use of the eidetic reduction and intuition of essences.

Rejection of Positivism

For many social scientists interested in interpretive case study research it is possible to mix commonsense assumptions about ontological and epistemological issues with detailed observations and call that "phenomenological research." They may ignore the philosophical idea of eidetic reduction but nevertheless use it in its simplest form, as

a reduction. A phenomenological reduction is an attempt to get at those aspects of a phenomenon that are key but that may run counter to current commonsense thinking about issues such as gender roles in nursing or medical diagnoses of mental illness. That is partially because a more phenomenological and qualitative orientation to theory and research in social science is often contrasted with a positivistic and quantitative approach. There is confusion between post-Kantian phenomenalism and empiricism (e.g., Berkeley, Hume, and John Stuart Mill) and phenomenology per se, and some authors even use the Greek term hermeneutics ("interpretation") interchangeably with phenomenology. The emphasis for many so-called phenomenologists in social science is placed on interpretation of human meaning on the basis of the study of observable phenomena; however, often no eidetic reduction of commonsense assumptions is carried

Aspects of philosophical ideas associated with Husserl, Martin Heidegger, and Maurice Merleau-Ponty have had an impact on applied fields such as social work, management, administration, rural development, and nursing. For example, for a nursing doctorate it is possible to study the essential features critical for adequate administration of a hospital using Husserl's idea of reduction; however, it is not always clear whether researchers accept the whole package even when they refer to philosophical phenomenologists such as Heidegger, Hans-Georg Gadamer, Paul Ricoeur, Jacques Lacan, Richard Rorty, or Jacques Derrida. It is particularly common in the nursing literature to find summaries of existentialist phenomenological philosophers such as Heidegger and Gadamer with only very rudimentary qualitative methods.

However, there are prominent examples of the blending of the deeper epistemological insights found in Husserl's work with other, more empirical approaches. Schutz attempted to blend Husserl's phenomenology with Max Weber's interpretive sociology; Merleau-Ponty combined Husserl's phenomenology with Gestalt psychology; and Harold Garfinkel combined aspects of Husserl's thought with modifications of Talcott Parsons's structural-functionalist sociology. Wilfrid Sellars, who understood that Kant had made a radical break with both rationalists and empiricists, was interested in phenomenological concepts such as everyday lived

experience and attempted to reconcile common sense with science, an idea that influenced the neopragmatism of Rorty.

Phenomenological Sociology

Schutz argued that we can take ideas from Husserl and from Weber and construct a phenomenological sociology. Husserl, the mathematician and philosopher, was not well grounded in comparativehistorical sociology, but—at least according to Schutz-Weber did not conceptualize Wilhelm Dilthey's idea of understanding (verstehen) in a rigorous enough manner. Dilthey and Husserl discussed phenomenological themes, and today many social scientists discuss the idea of understanding (verstehen) without restricting the term to the very precise technical meaning that Schutz was interested in clarifying. The social construction of reality perspective in social science owes a great deal to Schutz. The key notion relevant to case study research is that any interpretation should set aside common perceptions and prejudices as much as possible. Although it may not be entirely possible to fully "bracket" the ideas we commonly accept in our cultural milieu, it is nevertheless possible to move beyond the common stereotypes with regard to topics such as class and status, race and ethnicity, sex and gender, and a host of other phenomena.

Application

There is a certain degree of simplification involved in even the most sophisticated attempts to utilize the phenomenological approach. Garfinkel's ethnomethodology attempts to utilize these abstract ideas through the empirical study of details of the accomplishment of interactions such as attendance at a university lecture or taking an exam. In conversation analysis the details of any discussion are studied through a complex coding scheme that includes all gaps and every possible nuance.

An excellent map of all of the assumptions commonly invoked has been presented by Max van Manen. For example, he took the concept of "care" (*sorge*) and analyzed it in terms of the common aphorism (taken from a popular reggae song): "Don't worry, be happy!" On the basis of a criticism of the work on care done by Heidegger and

other thinkers, van Manen provided a clear example of a phenomenological analysis in social science, with particular emphasis on the relevance of nursing. He cited the work of a well-known novelist and conducted a phenomenological analysis of a specific situation. The experience of caring for a loved person is often intense, but it does not always have to be. Particularly intriguing is his etymological analysis of foreign language expressions for care. Care can be for the self or for others. The gender role implications are clear. Most nurses are female, and women have traditionally been stereotyped as caregivers, while men (and children) have often been viewed as the receivers of care. When we bracket gender role assumptions of this kind we can be said to be doing a phenomenological reduction, even though such considerations are far removed from Husserl's original intentions concerning ways to get at the essence of complex mathematical problems.

Critical Summary

The problem of using a sophisticated phenomenological approach in a manner consistent with the philosophical literature has not been fully resolved, but the nursing literature suggests ways in which the term can be used in practical, applied settings without entirely losing at least one aspect of the epistemological aspect of Husserl's original views. Indeed, there is a tendency to ignore the broader epistemological implications and proceed as if there is no difference between the hypotheticodeductive method and phenomenology. One can avoid the complexity of the term *phenomenology* only at the cost of throwing out the real value of the core issue with the metaphorical bathwater.

J. I. (Hans) Bakker

See also Class Analysis; Epistemology; Gendering; Interpretivism; Ontology; Theory, Role of

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PHILOSOPHY OF SCIENCE

Humans derive their beliefs from a mixture of sources: tradition, religion, dogma, and reason, among other bases. The philosophy of science is the study of that which distinguishes science from other forms of knowledge, belief, or superstition. It is a guide to the determination of the boundaries and character of science. Science constitutes the application of reason in the evaluation of hypotheses or conjectures about physical, natural, and social reality. These hypotheses are often tested through empirical observations, derived from the senses with the assistance of technology, and captured by measurement. Controlled experimentation is key.

Also critical to scientific investigation is the case study, although its value is sometimes underestimated. It is a means to derive empirical evidence, to assess relations among variables, and to formulate hypotheses; it also serves as a window on the scientific process itself.

Conceptual Overview and Discussion

The scientific method is ordinarily defined as objective hypothesis testing through experiment. Open discussion and the replication of findings enhance researchers' confidence. The result of this process is expected to be the reliable prediction of natural phenomena. The advance of science promises further precision and greater reliability in prediction as well as progress in technology and problem solving. The scientist seeks objectivity, to question preconceptions, to follow the evidence. According to the idealized view, he or she must choose reason over emotion, observation over assumption, fact over faith. However, scientists themselves acknowledge that these principles are sometimes honored in that scientists may suffer from bias and presumption. Autonomous reason is a difficult, if not impossible, standard. For example, physicist Albert Einstein has been faulted for his reluctance to abandon his preconceptions to embrace quantum theory.

On the other hand, there are multiple paths to useful knowledge. Even misconceptions can yield novel theories. The imagination can contribute to the development of hypotheses. Insights may come from fantasy and even religious conceptions. Fred Hoyle's steady-state theory of the universe reputedly was inspired by a circular subplot in the 1946 movie "Dead of Night." Although astronomers have found that the existence of dark matter in the universe contradicts steady-state theory, Hoyle's speculation spurred productive investigation of the origins of the universe. Scientific insight can come from disparate sources, even from the application of metaphor. The source of insight is less important than the next steps: the development and evaluation of hypotheses.

Science sometimes appears to be a linear and cumulative process of discovery; at other times, it is driven by conflict and shaken by radical shifts in understanding. As scientific knowledge expands its domain of reliable prediction, questions previously considered within the jurisdiction of philosophy or theology are claimed by science. For example, Charles Darwin's discoveries helped

generate an evolutionary science from the womb of philosophy and theology. However, wide consensus among scientists does not persuade those who insist on the primacy or sufficiency of revelation. Fundamentalists of many religions continue to deny the evidence that human beings evolved from other mammals.

Despite the centrality of quantitative data analysis and hypothesis testing to scientific research, the case study provides a substantial contribution. A rich and detailed examination of a particular case—for example, the behavior of an animal species, the practices of an ethnic community, or the history of a social institution—may illustrate associations and imply causal relations. The case study may serve as an aid to hypothesis construction. One searches for preliminary evidence of patterns. A case study that represents an apparent exception may stimulate refinement of the hypothesis. A contradictory case may undermine the leading hypothesis and require a radical shift in perspective.

Nonlinear Development in Science

The development of science has been characterized by cycles as well as linear progress. Theories return to circulation cast in a new vocabulary with new forms of justification. A few examples should demonstrate this process. Each contributor to the development of scientific ideas provides a case study of inquiry, and the value of the case study is confirmed.

Aristotle is recognized as a scientific pioneer in his contributions to logic and his embrace of empirical evidence as the route to understanding natural phenomena. In fact, Aristotle's empirical biology remains a historic achievement. The Greek astronomer Aristarchus proposed a heliocentric universe, challenging the dominant Ptolemaic view of a universe with the earth at the center. Greek and Roman philosophers anticipated many modern scientific hypotheses. They utilized logic and mathematics to develop models, but they may have believed that these models were primarily for predictive and calculative purposes rather than for determining reality. They laid the logical foundations of science prior to the development of aspects of the scientific method.

The Scholastics, including Ibn al-Haytham, Averroes, St. Thomas Aquinas, and Francis Bacon,

sought to reconcile the legacy of the Greeks with theology. Occam's Razor exemplifies the contributions from the Scholastics to the development of science. It is an argument for a preference for simplicity in the construction of arguments in theological inquiry. William Ockham, a logician, is associated with this principle but probably did not originate it. It appears to have many authors, including Aristotle and Aquinas. This principle was ultimately incorporated into scientific analysis. The Scholastics looked at philosophical arguments dialectically and affirmed interpretations that would reconcile apparently conflicting elements.

The 10th-century scholar Ibn al-Haytham helped fashion the *hypothetico-deductive model*, a principal component of the scientific method. The researcher seeks evidence that contradicts propositions derived from the primary hypothesis. Such contradictions require alteration of the primary hypothesis. The 16th-century philosopher Francis Bacon submitted that induction, through which one identifies and counts cases consistent with one's hypothesis, is the source of scientific knowledge.

Galileo challenged theological orthodoxy with his planetary observations. He is credited with a critical contribution to scientific knowledge: the reliance upon telescopic observation to build a heliocentric model of the earth's astronomical home. Of course, his work followed both Aristarchus and Copernicus, whose arguments for the solar system were derived mathematically.

Science even now competes with religion as the authority for knowledge. Geneticist Richard Dawkins protests *The God Delusion* in his campaign to extend the frontiers of science. On the other hand, paleontologist Stephen Jay Gould sought articles of conciliation for science and religion, embracing the Thomistic idea that there is a proper division of labor between science and faith. Physicist Paul Davies also finds modern science compatible with faith. On the other hand, some religious fundamentalists reject any such model of coexistence and seek validation for their views in idiosyncratic interpretations of fragments of ancient religious texts.

Relationship to Truth

Some scientists, often designated *realists*, insist that science indeed represents settled truth and

that the path of discovery refines and extends an accepted body of truth. Among these are the logical positivists (the early 20th-century philosophers of the Vienna Circle) who see in science an unbroken linear trajectory of progress over metaphysics and increasing control over nature. Logical positivists see in science the verification of propositions and removal of uncertainty.

The so-called "anti-realists," or *instrumentalists*, argue that science does not represent truth. They believe that scientists' ability to predict does not demonstrate that the truth has been captured. The frequency with which new theory supplants old causes them to regard theory with skepticism. Some anti-realists (postmodernists) suggest that science offers one way among others of understanding the world and that it is not necessarily the superior one. Other anti-realists submit that humans probably lack the ability to uncover basic truths, given irremediable deficiencies in native capacity.

Plato and Aristotle differed on a relevant question that is fundamental to this discussion. Plato claimed that "ideas" were the core of truth and were only dimly perceived by material beings, and Aristotle countered that the "forms" that underlie all things are comprehensible to humans because of a correspondence of forms in perceiver and perceived.

Philosopher William James suggested that one should adopt beliefs that are personally effective, that work for oneself. For example, James embraced the "will to believe" as sufficient to justify one's acceptance of religious doctrine. This appears to support the anti-realist position. However, James was a trained physician who recognized the value of medical research, as demonstrated by the effective consequences for individuals. James's *radical empiricism*, a rejection of the argument that the mind is independent from nature and knowledge a fixed quantity, anticipated modern scientific notions of relativism and indeterminacy.

Richard Rorty, a postmodernist, more recently insisted that one should not privilege one theory over others. Social constructivists believe that science consists of socially constructed ways of understanding the world. Some are skeptical about the reach of human understanding. Others, following Karl Mannheim, insist that perceived facts cannot be separated from social context. Still others deny that reality exists independently of socially constructed views.

Scientists often advance models as instruments of analysis. A *model* is a representation or picture of natural phenomena involving interacting variables. Some people would argue that the model is a direct representation of reality. Others stress the heuristic value and might insist on the equal value of apparently inconsistent models. For example, physicists describe light as comprising wave and particle. Alternatively, a model may be a metaphor, an aid to understanding rather than an accurate representation.

The case study provides a richness of local details to counter the deficiencies of abstract investigations. These details may be irrelevant to existing theory but may prove important in a later exercise.

Incommensurable Paradigms?

Historian of science Thomas Kuhn is best known for his concept of *paradigm*, a set of widely shared propositions orienting the fundamental structure of a science. He outlined the development of scientific knowledge in a series of stages. *Pre-science* characterizes the phase preceding consensus on paradigms. This is followed by a period of consensus on a particular paradigm during which the paradigm is extended and refined. *Normal science* research continues until the accumulation of anomalies brings a crisis in the prevailing paradigm and an associated *scientific revolution*.

Kuhn argued that paradigms are incommensurable in that one cannot effectively evaluate one paradigm from within another. Paradigm choice is therefore not necessarily a rational process. Hypotheses are often embedded in the process of observation. The work of Sapir and Whorf adds to the problem of incommensurability: Language shapes knowledge and understanding, further complicating the efforts of rational scientists to escape limiting assumptions

Historians of science Arthur Koestler, Thomas Kuhn, and Michael Polanyi dispute, to varying degrees, the notion of science as a steadily increasing approximation of truth. In his famous history of science Koestler described the early astronomers as "sleepwalkers," whose discoveries were often the result of serendipidity rather than rational argument. Koestler provided the example of

Kepler's derivation of his laws from religious and astrological sources. Polanyi, like Kuhn, stressed irreducibly subjective and relativistic elements of science. Koestler and Kuhn both developed their notions of scientific advance from case studies.

Problem of Induction

How do scientists demonstrate the universal validity of a hypothesized natural law? Scientists have long sought to develop unified models of the universe on the assumption that causal relations among phenomena apply universally and allow reliable prediction. The compilation of observations does not complete scientific analysis, because a finite set of observations does not fully characterize a phenomenon. There remains a need for induction, for inference from the specific to the general. Although tests may be replicated, induction remains necessary to reach the universal. The absence of contradictory evidence, or evidence that "falsifies," in Karl Popper's words, enhances the claim. The "coherentism" argument of W. V. Quine reinforces the expectation of a coherent and internally consistent system. Similarly, Carl G. Hempel and Paul Oppenheim advanced a deductivenomological approach casting science as the extension of general laws to phenomena under study. The deductive-nomological model invokes natural laws as the explanation for particular phenomena and finds all events under the jurisdiction of natural laws. Newton's work conformed to this model.

Logical positivists claimed that science indeed had the power to verify propositions. Popper countered with the notion of *falsification*, which replaces the confident proclamation of law with the lesser certainty of that which has not been disproved or falsified.

The Bayesian approach (Bayesian confirmation theory) represents a potential alternative to induction. Instead of asserting a universal on basis of induction, one calibrates belief by degree, and successive trials and study enhance belief. Another alternative to induction is *abduction*, the inference of the best explanation for a phenomenon, as argued by Charles Peirce. Abduction takes an event and identifies a likely cause among existing candidates. Peirce argued that humans were innately equipped to undertake such inferences.

Among the considerations affirming the value of a potential explanation is simplicity.

Scientists struggle with anomalies and evidence of contradictions. Physicists in the last century have encountered contrary evidence and now speak of *singularities*, realms that do not operate according to universal laws. The origins of the universe, black holes, and quantum uncertainty are candidates for singularities. The discoveries about unpredictability at the level of elementary particles suggest a discontinuity in physics that physicists have been trying to resolve.

Physicist Werner Heisenberg proposed a novel theoretical pluralism. He had contributed to the advancement of quantum theory but denied that indeterminacy at the elementary particle level contradicted Newtonian mechanics. Heisenberg advanced the notion of *closed theory*, according to which an interlocking network of axioms and dependent propositions applies to a narrow domain but coexists with alternative theories covering parallel realms.

The Social Sciences

The social sciences pose distinctive challenges in the construction and testing of hypotheses because they must incorporate the uncertain behaviors and deliberate choices of multiple conscious beings. Early sociologists, such as Auguste Comte, and economists (both classical and Marxist) embraced the Newtonian assumption that a small number of natural laws explain all observable phenomena. This introduced a problematic determinism. In addition, the ethical complications of experimentation with humans as subjects limit the confidence with which theories are sustained. Advocates of tobacco, opponents of ergonomics regulation, and critics of global warming arguments all depend on gaps in the experimental record to deny scientific consensus. Fortunately, social science is particularly amenable to case studies, which provide contextualized research in which details of social dynamics, institutional development, distinctive features, and commonalities can be identified.

Critical Summary

Scientific skepticism, claims for the subjectivity of scientists, and relativist arguments all challenge the authority of science and pose a riddle for the researcher. How does one reconcile doubt and inquiry? Pragmatist thinkers may provide a partial solution. American philosopher John Dewey considered everyone a potential scientist, not because all theories are equally true but because all learning embodies a form of hypothesis testing and experimentation: learning by doing. Dewey observed hypothesis testing at work in a baby's exploration of the environment. This everyday form of science clearly generates reliable results as the baby's knowledge and skills grow. Dewey also found scientific experimentation to be the driving force in technological process. However, he insisted that truth must be provisional and subject to further testing. Scientific investigation might inspire new technologies and products and assist in the solution of problems, but it cannot generate fixed certainties.

From Dewey's insights come an apparent contradiction: confidence in the human capacity for learning combined with humility in the pursuit of knowledge. A pragmatist approach embraces rigor in scientific methods but honors improvisation as well. Hypothesis testing is embedded in all learning but need not be the explicit instrument of each inquiry. In fact, the case study is central to pragmatism as the means to evaluate the consequences of personal and social choices.

David Carroll Jacobs

See also Abduction; Falsification; Hypothesis; Indeterminacy; Inductivism; Paradigmatic Cases; Postmodernism; Postpositivism; Pragmatism

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PLAUSIBILITY

The term *plausibility* has different meanings in case study research, depending on the purpose of the study. Generally, it can mean agreed-upon specific versions of the world. In some cases, it has to do with determining whether a case study is worth conducting; in others, it might mean determining whether the theory derived from the case makes sense, or whether the case rings true.

Conceptual Overview and Discussion

Plausibility in case study research depends on the purpose of the study or the philosophical orientation of the researcher, who may be conducting the study from a positivistic, interpretive, or critical perspective. *Positivistic* research studies are intended to produce generalizable theories, *interpretive* studies are intended to provide deeper understandings of a particular case, and *critical* studies look at the specifics of a case and how they are connected to broader societal structures to expose issues of power and domination. Critical researchers sometimes use elements of positivistic and interpretive research; therefore, this discussion is limited to considering plausibility as it relates to the two most common types of research: positivist and interpretive.

In their pursuit of theory, positivist case study researchers often want to determine whether conducting a case study is worth the time, effort, and money. Harry Eckstein proposes that researchers probe the plausibility of various hypotheses that have been formulated regarding a particular issue before proceeding directly to test them through a large-scale case study or comparative studies. He

compares plausibility probes to the trials to which one subjects a racehorse before incurring costs of entry and preparing a horse for a major race. At a minimum, a plausibility probe can be accomplished by nonempirical means, which entails only the cost of thought to consider whether a theory is worth investigating at all. Alternatively, empirical probes can also be conducted on a small scale, which might result in inconclusive but nevertheless suggestive results that warrant further investigation through larger scale studies.

Closely related to the idea of plausibility is *validity*, which refers to the strength of a proposition or inference. Plausibility can mean more than potentially valid hypotheses but less than actual validity, for which rigorous testing is required. Plausibility probes, therefore, may point to the need to test the validity of a theory.

Clyde Mitchell also differentiates between plausibility and validity, although his notion of plausibility is quite different. Plausibility to him means the inference of a logical relationship between characteristics of the sample population in a study. For example, Mitchell describes how the validity of an inference may be statistically sound but not plausible. To make the point he cites a study conducted by Asher I. Sapolsky that describes how 61% of respondents with dietary eating disorders saw a frog in a Rorschach inkblot test compared with only 16% of those without an eating disorder. On the basis of the statistical evidence, Sapolsky inferred that the reason the respondents with eating disorders saw a frog was because of their unconscious belief in the cloacal theory of birth, which involves oral impregnation and anal parturition, seen in cloacal animals such as frogs. Although Sapolsky's conclusion that more respondents with eating disorders saw a frog in the inkblot test was supported statistically, his explanation of the causal links was deemed illogical or not plausible by other scientists.

Plausibility to interpretive researchers means determining whether a case rings true. It is the ability of the text to connect the reader and the subject's world. Karl Weick refers to this as *sensemaking*, or trying to come to an understanding of a complex situation or organization, often in response to a surprise. Case studies that are deemed plausible typically elaborate on a situation, pose questions, compare the case to other cases, reframe the case, and seek alternative solutions.

Another test of plausibility for interpretive researchers is the *verisimilitude* of the case, or the feeling that the experience described is lifelike, believable, and possible. The validity of the case can then be cross-checked through triangulation.

Plausibility plays an important role in case studies that are used for teaching purposes where it is important for the readers to see themselves in the case as well as see the case from multiple perspectives. Plausible cases usually have some ambiguity with no clear-cut answers in order to generate discussion. Such cases can provide the impetus for inquiring more deeply into one's own and others' values and assumptions.

Application

Harry Eckstein suggests some nonempirical ways of surmising the plausibility of a theory before engaging in a full-scale study. One is to consider whether the theory is derived logically from premises that have previously yielded valid theory in a field or whether it is contrary to those that have led to major failures. Other ways to probe the plausibility of a theory is to consider whether it is able to account for both the strengths and weaknesses of an existing hypothesis or whether it seems to organize considerable volumes and varieties of unexplained data.

There are several empirical methods of probing the plausibility of a theory:

- Conducting preliminary, loose, inconclusive, but suggestive tests to determine whether it can withstand the challenges to the theory
- Conducting modest comparative studies, as preludes to more ambitious and tighter ones
- Conducting small well-selected case studies

These methods to determine plausibility, if rigorously carried out, could become tests of the validity of a theory.

The notion of plausibility in terms of whether a theory makes sense cannot be determined solely by statistical inference in case studies. Instead, it must also be based on the theoretical linkages among the features of the study. An analyst must be intimately knowledgeable of the details of a case in order to gain illuminating insights that will produce a cogent theory.

One way plausibility in interpretive and critical case studies can be achieved is through what Clifford Geertz calls *thick description*, whereby the context of the case is clearly described to show its complexity, thus simulating real-life situations. Plausible case studies that are used for teaching purposes might be developed by the students who have experienced, or are experiencing, issues they are studying. When students are asked to write cases that are based on their own experiences, they are advised to determine a question or questions to be answered; clearly describe the situation; write the case in the form of a narrative, with a beginning, middle, and end; and propose possible solutions. In these instances the instructor and the students co-create the curriculum.

Critical Summary

One of the difficulties with plausibility in case study research is that it can mean something different to different people. In general, however, it means how well a case fits with prior knowledge. Critics argue that plausibility is therefore dependent upon or limited by the researcher's prior knowledge. In case studies that are complex there may be numerous interpretations of the facts that may be plausible depending on the purpose of the study and the researcher's knowledge and philosophical orientation. Furthermore, does the researcher use corroboration or conjecture to determine plausibility? Would another researcher with different knowledge and a different philosophical orientation arrive at the same conclusions? Researchers should have a clear understanding of the philosophical orientation from which they are working and of how well the findings can be corroborated with previous work. The plausibility of the case could be the ground on which to build the validity of a theory related to it.

Carol Lynne Fulton

See also Authenticity; Causal Case Study: Explanatory Theories; Paradigmatic Cases; Sensemaking; Thick Description; Triangulation

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PLURALISM AND CASE STUDY

The case study would seem to promise a high degree of pluralism. It is a very flexible and versatile research strategy that provides researchers a diverse range of options in regard to research designs; data sources; methods of analysis; and, above all, philosophical approaches to ontology and epistemology. Yet an analysis undertaken by Rebecca Piekkari, Catherine Welch, and Eriikka Paavilainen of case studies that were published by four key journals in the field of international business in the period from 1995 through 2005 found that the potential for diversity and pluralism was not exploited. Instead, a single type of case study predominated: Authors stated their research objective to be exploratory; data were largely sourced from interviews; and the research design was based on multiple rather than single cases, investigated at a single point in time. In contrast, explanatory, theory-testing, ethnographic, longitudinal, or single-case case studies were rarely found.

Positivistic assumptions underlie the dominant form of case study in international business journals, although most authors did not explicitly acknowledge their philosophical stance. Perhaps they were not aware of it, considering that even the few authors who were expressly interpretivist nevertheless revealed positivistic tendencies. Positivistic assumptions are also well represented in the methodological literature on the case study. Such an approach to the case study advocates multiple case designs over single case studies, because

replication is seen to enable more robust theories. This tradition favors a "design" logic, in which field work commences only once a detailed blue-print has been specified. Multiple data sources are encouraged as a form of triangulation, which allows the research to converge on a single explanation. Positivistic authors are also variable oriented in their approach; in other words, they regard case studies as the exploratory stage in the scientific quest to arrive at generalizable causal laws that specify the relationship between variables regardless of context. In the study noted earlier, Kathleen Eisenhardt and Robert Yin were found to be the most commonly cited methodological authorities.

However, other perspectives on the case study can be found in the methodological literature, even though these may not have been utilized by practicing case researchers—at least not in the field of international business. These alternative voices often identify with interpretivist or critical realist philosophies and challenge each of the tenets of positivistic case research. Gibb Dyer and Alan Wilkins criticize the multiple case study by arguing that it can only arrive at a surface view that does no more than augment existing theory, given its thin description and lack of context. They defend the single case study for its paradigmchallenging potential. Also, the design logic associated with positivistic assumptions has been questioned by Charles Ragin, who argues that what the case is "a case of" can be determined only during the course of the research. In his view, relating the case to theory is an iterative process. Although there is broad agreement that multiple data sources are a strength of the case study, interpretivist authors are likely to maintain that this is not because they allow for convergence on a single explanation but rather that they uncover, as Robert Stake notes, the multiple—even conflicting—emic understandings held by the actors of the case themselves. Furthermore, the positivistic, variable-oriented approach has been challenged by critical realists such as Alexander George and Andrew Bennett, for whom the strength of the case study lies in its ability to develop contextualized explanations, and by interpetivists such as Robert Stake, for whom the goal of social science is verstehen (understanding) rather than erklären (explanation).

There are, therefore, sharp divisions in the methodological literature over the purpose of case research, prescriptions for how case research should be conducted, and appropriate measures for judging the quality of case research. Should case researchers value replication over richness? Should they follow their initial design as closely as possible, or should they allow for the emergence of new research questions in response to surprises in the field? Should convergence on a single explanation be favored over the representation of multiple meanings? Should researchers aim for variableoriented law-like causal statements rather than contextualized explanations? Given the differences in philosophical worldviews that underlie these debates, any attempt to reconcile the opposing sides is likely to be counterproductive; instead, pluralism can be seen as an inherent feature of the case study. The way forward is perhaps for case authors to be more reflexive about their own research practice and the assumptions underlying it. As Piekkari, Welch, and Paavilainen's study demonstrates, case researchers could be more explicit in their reporting about the type of case study they have conducted (e.g., interpretivist or positivist) and the most suitable quality criteria by which to judge it.

Jennifer Platt has observed that although Yin's pioneering work (the first edition of his book was published in 1984) legitimized the use of case studies, this occurred at the expense of some of the long-established assumptions, practices, and aims associated with this methodology. In particular, she notes that as a result of Yin's influence the case study is no longer synonymous with the rich detail gained from participant observation. Although pluralism was perhaps initially sacrificed for legitimacy, different perspectives on the case study have since emerged. Twenty-five years following the first book on the case study, it is perhaps time for pluralism no longer to be regarded as a threat to the legitimacy of the case study. It is hoped that case researchers can now explore different paths and approaches with greater confidence.

> Rebecca Piekkari, Catherine Welch, and Eriikka Paavilainen

See also Critical Realism; Epistemology; Longitudinal Research; Multiple-Case Designs; Single-Case Designs; Theory, Role of

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POLAR TYPES

A polar type is a kind of case study involving characteristics of interest that are extreme or unique (e.g., a case involving odd behaviors, poor performance, or very unusual events). Although there is literature on developing theories using case studies, as well as on the design and methodological issues related to case study research, there is very little information specific to polar cases. For discussion purposes, we do not refer to a polar type in terms of polar subjects; instead, we refer to polar cases as types of cases wherein design and methodological issues need to be considered because of the nature of the case subject.

Polar case studies involve the rich, detailed description characteristic of all case studies but focus this methodology on processes that are more distinct or dramatic and hence more observable. Such extreme cases can help researchers describe,

understand, and explain the wider characteristics of specific phenomena. Polar case studies stimulate theory development because they involve theoretical sampling of extremes to develop and examine extreme or contrasting patterns. Case selection is a critical step in research design, and although case studies usually avoid extreme cases, polar cases can reveal relationships that may not be studied in other ways. Because such cases are by definition not representative, however, researchers must strive to avoid misrepresentation by selecting the right cases according to characteristics of interest.

Conceptual Overview and Discussion

Polar types may involve single- or multiple-case design, although they tend to examine fewer cases overall. Polar types can reveal relationships that may not be studied in other ways. Polar-type case studies can convey information dramatically. Phenomena that are not marked in most likely cases or average cases may be highly evident, and their effects more measurable, in the extreme situations observed when one is examining polar cases with the rich, in-depth, and contextual description that characterizes case study methodology.

Polar cases can also be used in a comparative case study so that the characteristics of interest can be anchored at opposite ends of a continuum, such as the contrast between a highly successful case and a highly unsuccessful one. Focusing on two cases that are very dissimilar can yield a wider range of results. For example, a researcher examining how companies motivate staff to embrace lessons learned from projects could use a polar case design focusing on a company with stellar project management that includes management support; project management practices (a methodology, tools, and techniques); and a culture that supports quality improvement, open communication, and learning and sharing (i.e., embedding improvements into organizational routines, mentoring, job shadowing, and a community of practice). That case might be contrasted with another company in which little formal project management practice exists. Such comparisons provide a dramatic illustration of the limits of and variation within a research subject.

Polar types stimulate theory development because they involve theoretical sampling of extremes to examine and develop contrasting or extreme patterns. They are important to the subject of this encyclopedia because case selection is a critical step in research design. Researchers strive to avoid misrepresentation by selecting the right cases in terms of characteristics of interest.

Application

Because researchers can gather rich, informative, and possibly influential information from atypical cases, polar types are an important form of research design. As with case study strategy in general, polar types focus on "how" and "why" questions to develop in-depth, holistic understandings of phenomena in natural (contextual) settings. However, polar case studies typically involve a single case, or at most a few cases. Investigators approach polar case studies with the same rigor they would apply to other case research strategies throughout the entire process, including the use of a formal process to select cases. Researchers are also intent on maximizing access to data relevant to their research questions. Researchers involved in polar case studies strive to plan and design their data collection strategy (e.g., documents, archival records, interviews, direct observation, participant observation, and artifacts) with an attention to detail so that they have multiple sources of data to corroborate and enhance data reliability and internal validity. This is especially important for polar types, where opportunities for cross-case corroborations may not be possible.

For polar cases, where the same phenomenon is being examined according to what are essentially opposite characteristics, it is prudent to develop appropriate research questions and ensure that the theoretical domain drives the research questions under investigation and, in turn, that the research questions guide the data collection approach, including case selection.

Polar case researchers need to be very mindful of personal biases during the process so that they can analyze the data objectively. This is especially important in single case studies. Researchers can involve teams of investigators to conduct crosschecks on facts and discrepancies, verify data throughout the process, probe for deeper meanings, and complement the insights gleaned. This can also help the team avoid premature study conclusions

and help enhance confidence in the findings. Researchers can also use embedded designs for multiple units of analyses to enhance confidence in the findings.

Unlike those working on most likely or average cases, polar case researchers may find it challenging to select cases and negotiate access for data collection, especially if the phenomenon under investigation has negative associations. For example, a researcher studying the thought processes, precipitating events, attitudes toward ethics, and decision-making practices related to insider trading (as an extreme case of the decision-making process and practices of investment professionals) may need to interview and/or observe individuals who have been charged with these crimes. It could be quite challenging to find such individuals who would be willing to participate in such a study.

Critical Summary

Polar types are amenable to very deep understandings of the dynamics of singular or few contextual settings. Because polar types demonstrate extreme characteristics of interest they also lend themselves to crafting better and more memorable stories. Whereas multiple case studies are generally used to build theories using emergent processes (i.e., inductive reasoning), polar types can help researchers support the existence of specific or extreme phenomena. Polar types lend themselves to cross-case thematic analyses of the contrasting nature. They can also be used to test (falsify) hypotheses.

Because polar types may involve single cases or, in the case of multiple-case design, fewer cases overall, polar types may limit the extent of analytical generalizations, yet the aim is generalizations to theory, not to populations. Case selection may be difficult and subject to challenge, because by definition such cases occur at the extremes of the continuum. Researchers must carefully plan methodology to avoid bias.

Polar types can involve publications that are extremely memorable. Many readers remember few numerical details, but they often recall memorable stories that are well told. By allowing the researcher to bring the richly in-depth methodology of case study to extreme examples, polar case studies help researchers investigate and present interesting and extreme phenomena of interest,

develop theory, and establish the variation and limits of specific phenomena.

Kam Jugdev and Lisa N. LaFramboise

See also Comparative Case Study; Multiple-Case Designs

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POSTCOLONIALISM

Postcolonialism is a field of study primarily composed of the critique of a variety of different colonial endeavors undertaken by a range of different countries and political regimes. Of particular concern are the effects of colonial practices on people and places both while engaged in the struggle for independence from colonial rule and, where free of its original imposition, during its continued struggle with its very often perniciously divisive legacy. The post in postcolonialism, therefore, does not indicate that colonizing processes and ambitions are a thing of the past. More particularly, almost all postcolonial research is directed toward understanding both the history and the legacy of colonization in order to bring to light and better understand the continuing deleterious effects of the violence, discrimination, and subjugation that have been so consistently integral to colonizing practices and attitudes. Responding to this oppression, postcolonial research includes the examination of various forms of resistance these practices have engendered, in particular on the part of indigenous inhabitants of colonized lands. In fact, in the view of many of its practitioners postcolonial theory itself participates in this resistance by playing a role within the context of the continuing influence of a colonial heritage akin to that played by class consciousness within Marxist theory. The practical value and the theoretical significance of this perspective for case study research into innumerable instances of systemic oppression, discrimination, and marginalization of a vast range of different populations can best be apprehended and appreciated against the background of a more general overview of the theory itself.

Conceptual Overview and Discussion

As a field of academic study, postcolonialism tends to take its bearings from a handful of very influential writers, including but not limited to Aimé Césaire, Frantz Fanon, Edward Said, and Gayatri Chakravorty Spivak. Before looking more closely at the contribution of these authors and how their writings can help to establish a theoretical framework for case study research, it is helpful to review the theory's genesis through the political, economic, and cultural practices and ideologies that contributed to its development.

The terms colonialism and imperialism are often used together as if there is little to choose between them, but there are useful distinctions to be made for the purposes of understanding postcolonial analysis. Although the diversity of practices known as colonial and imperial make broad generalizations less than helpful, there does seem to be some agreement that imperialism tends to be focused on the concerted expansion of a state's power and political authority over an expanding area of land for reasons that were as much ideological as strategic and commercial. Historical undertakings referred to as *imperialistic* have been characterized as driven by the will to power of a central, nationalistic authority that understands its own glory and significance to be measured as much by its geographic expanse as by the perpetuation of its political and bureaucratic mechanisms of organization and control. In other words, although the financial benefits that could potentially accrue from such crusades were often substantial, the imperialist mission is as closely tied to an expanding idea of a state's sense of itself as a state and the prerogatives associated with its exercise of military power as well as the perceived virtues of any or all of its political, religious, artistic, and economic cultures.

Although the expansion of imperialist states often included the establishment of colonies, the practices primarily recognized as "colonial" appear to have been undertaken for somewhat more overtly pragmatic reasons. The term is used today to refer to settlements established for any number of diverse reasons, however, including (a) the extraction of raw and rare materials, such as gold, fur, fish, sugar, and so on; (b) the establishment of enclaves either to facilitate this extraction or, in some cases, for strategic military purposes, as with Guantánamo, the American naval base in Cuba; (c) as part of a process of judicial exile, as in the case of Australia; or (d) of religious refuge, as with the settlement of Pilgrims in America. The fact that these colonists were not the first to occupy the territories on which they arrived meant that the establishment of colonies inevitably also meant at least some form of displacement—and, often enough, the actual replacement—of the original inhabitants. Despite the comparatively assuasive nature of the word, therefore, the practices of the colonizers toward the indigenous peoples they encountered more often than not included any of, or any combination of, the following: genocide (as in the periodic wholesale killing of native North and South Americans at various times by the British, French, Portuguese, and Spanish); enslavement and enforced labor (as in the capturing of Africans for work on American and Caribbean plantations and in mines); and more general forms of exploitation, exclusion, suppression, and discrimination, supported by the various forms of political, economic, and religious systems introduced by the colonial authorities.

The long-term consequences of these actions were and are as definitive for the colonizing "civilizations" as for the indigenous populations they encountered, and they almost always long outlast any eventual achievement of national independence on the part of the original inhabitants. In addition to the more immediate effects of the many wars of independence fought throughout most of Africa and parts of Asia, Europe, and the Middle East during the 19th and 20th centuries, many of these now-independent countries continue to struggle to overcome often overwhelmingly divisive colonial legacies that were and still are the result of advantages bestowed by the colonizers on one segment of the indigenous population and not others.

These advantages often translated into disastrously disproportionate levels of wealth, power, and educational opportunities fought over in deadly and destructive civil wars, some of which, in many African and Middle Eastern countries, continue to this day. As ruinous as these wars continue to be, however, there is an equally pernicious and insidious legacy of colonialism to be found in the form of persistently influential ideologies of racial and ethnic superiority and subordination, combined with ideas of "civilization" and "development" that serve to legitimize all manners of systemic subjugation and exploitation at both regional and global levels. These ideologies transcend what are known more prosaically as racist and discriminatory attitudes on the part of particular individuals in that they are embedded within the very fabric of a society's economies, political structures, cultures, and religions. Much of postcolonialism undertakes to deconstruct these ideologies as a means of diminishing both their pervasiveness and their influence. In preparation for an overview of some of the major postcolonial works, a brief comment on a critical antecedent to postcolonialism within the social sciences is helpful.

To the extent that Karl Marx and Friedrich Engels wrote about colonialism, they were almost exclusively interested in the role it played in the development of capitalism and the production of capital. Focusing primarily on the British Empire, colonialism was further evidence for Marx of capitalism's unquenchable thirst for ever-increasing markets, sources of raw material, and inexpensive wage and slave labor. In keeping with their analysis of this historical process in Europe, where the success of capitalism was dependent upon the dismantling of feudal traditions, colonial excursions of the bourgeoisie into, for example, India and China, depended upon an equally radical reformation of the traditional economic and social activity then in existence in these places. Within the colonies, capitalism's relentlessly systematic exploitation or outright expropriation of indigenous labor was based now not just upon the class differences that capitalism both creates and perpetuates but upon racial and ethnic differences as well. It is worth pointing out, however, that Marx's view of the Orient was such that even with the abuses of industrialization he was by no means suggesting, for example, that the state of India before the

arrival of the British was something it would have been better to preserve. He was not, in other words, completely critical of Britain's role in accelerating the spread of technological advances into pre-industrialized, non-European parts of the world, notwithstanding the fact that such advances were spurred on by, and almost always immediately pressed into the service of, increasing capital accumulation. This is only partly because within the context of the broader themes of Marxism, colonialism tended to be understood as a further, more global step in a process of historical development destined to end with the revolutionary and worldwide establishment of a socialist economic order. Something like the steam engine, for example, is not in itself necessarily something Marx felt any society, even a communist society, would be better off without. And so, the question of the place and value of "progress"—not in the sense of the civilizing presumptions of what was called "the white man's burden" but in terms of the perceived potential for technological innovation to substantially lift so many above the grinding struggle for a subsistence existence—establishes a dialectic that not only effectively pervades Marxist and neo-Marxist considerations of colonialism but also can be heard resonating throughout much of postcolonial theorizing. The need for and the essential value of diversity and difference within any culture must limit isolationist tendencies, which are nevertheless a perfectly understandable temptation, especially in the immediate aftermath of years of colonial domination. The implications of such an essential antinomy at the heart of postcolonial theory for case study research into any particular aspect of the postcolonial experience will become clearer by briefly reviewing how this manifests itself through a review of some of the more foundational postcolonial works.

Aimé Césaire and Frantz Fanon

The Marxist framing of colonialism within the context of capitalism was found to be very influential on some of the early postcolonial writers. The objectification of human relations that Marx revealed as so intrinsic to capitalist modes of production understandably resonated very strongly with many indigenous peoples' experiences at the hands of colonization as well as with early

postcolonial authors such as Aimé Césaire and Frantz Fanon. Césaire in particular targets in his writing the hypocrisy and the avarice at the heart of the colonizers' attempts at linking capitalism to "civilization." A Martinican poet and political activist, Césaire points out, for example, in his famous and moving Discourse on Colonialism that to answer clearly the question of what colonization is, it is first necessary to confront what experience makes clear concerning the stark facts about its original motivations. Drawing a parallel between the most unscrupulous entrepreneurs and the colonial adventurers, Césaire sees the "pirate" and the "gold digger" as the decisive colonial actors, intent on propagating a version of civilization that extends across the world, promoting and establishing global competition in the form of antagonistic economies. Although mindful of the inherent antagonisms between the interests of different classes within capitalism, therefore, Césaire also recognizes the necessity of confronting further the accompanying influence and consequences of the dominant colonizing attitudes toward race. Marxism, however, scarcely anticipated the role of race in colonialism or, initially at least, the importance of nationalism and the need for independence from imperialist domination as a precondition to a revolutionary proletarian self-consciousness. Referring to colonization as the "bridgehead" in the crusade to reform or eliminate what was understood to be the barbarism of non-Western societies, Césaire, along with postcolonial theory in general, underscores the importance of the role of race in directing this crusade. Colonialism, then, was not just an economic endeavor; it was understood and justified by colonizers as a moral enterprise as well. It is significant, therefore, that when Césaire observes that colonization "decivilizes" and degrades the colonizers by inciting in them the violence of race hatred he is referencing a presumed license for particularly brutal forms of domination and subjugation that even the early capitalists recognized must eventually be counterproductive because of its potential to undermine the more or less orderly class relations upon which the long-term accumulation of capital depends. Nevertheless, just as Marx could not entirely condemn the potential collective benefits of the introduction of technological advances into places where they could be of so obvious benefit to the

overall material conditions of existence, so too would Césaire not allow his antipathy toward colonialism to lead him to the conclusion that isolation was the only or best response to it. On the contrary, Césaire understood that contact and exchange with different civilizations was essential and that its absence invites cultural atrophy. The problem, of course, was that the initial contact between Europeans and Africans was overwhelmingly premised upon relations of domination, exploitation, and enforced submission.

Confronting this harsh reality and further developing its ominous implications, Fanon, like Césaire, was also born in Martinique, but his contributions to postcolonial thought are derived primarily from experiences associated with the Algerian war of independence from 1958 to 1962. Working as a psychiatrist in Algeria during the early stages of the war, Fanon witnessed firsthand the debilitating psychological effects of this especially brutal conflict on participants from both sides. This experience provided the foundation for a penetrating and portentous analysis of both the formation of the colonized consciousness and what Fanon came to understand to be the necessarily violent means for bringing colonial domination to a definitive end. In his book Black Skin, White Masks, Fanon deconstructs the experience of black-skinned colonialized subjects as dealing with the persistently demeaning and dehumanizing attitudes and practices of the colonial powers by effectively denying the evident source of such treatment: the color of one's skin. The mask, then, is an imagined world of equality and respect capable of transcending race altogether. It is a specifically white mask, because within the context of the colonial worlds Fanon is writing about, and within which he has himself lived and worked, it is the white settlers who were accorded a form of respect denied all those who are not white. As a consequence, Fanon recognized the depersonalizing, self-denying temptation of indigenous non-whites to understand respect and equality to depend on living and thinking as if one were white and not black.

As psychological as such a formulation of the colonial dilemma is, however, the possibility of casting off this mask was, for Fanon, neither a psychological nor a psychiatric problem. To the extent that "respectability" is linked to material well-being, and so to one's standard of living,

Fanon understood the more or less successful maintenance of this masked existence to be responsible for the promotion of the growth of an artificially created, bourgeois middle class. In his book, The Wretched of the Earth, Fanon contrasts this false middle class with what he calls an "authentic national middle class," whose responsibility it was to repudiate its bourgeois nature, by rejecting capital accumulation in order to actualize what he referred to as the peoples' authentic "revolutionary capital." In fact, Fanon understood this responsibility to be no less than a historic obligation of any middle class that develops within the context of colonial rule. One of the most striking and influential aspects of The Wretched of the Earth, however, is that within it Fanon formulates the realization and development of this revolutionary capital as a necessarily violent endeavor. Fanon reasons that the same violence that accompanied the creation and ordering of colonial societies must be laid claim to by indigenous population, not to pacify the colonizers but to expel them altogether. Although Fanon does recognize that the true enemy in any colonial war of independence is colonialism and, as such, that one's nationality is not always a reliable indicator of who the weapons of war should be directed toward, this does not alter his commitment to the idea that the violent expulsion of the colonizing powers is necessary to the process of decolonization.

As suggested earlier, much of postcolonial theory and research understands itself to be participating in similarly liberating process. If it is not, for the most part, like Fanon, similarly committed to the need for violence, this is because the commitment to examining and understanding this process opens the door to more diverse and possibly more fruitful and productive prospects for the coexistence of the essential diversity of people and ideas. Nevertheless, within the context of postcolonial theory, no less than the interest in case study research, the contributions of Césaire and Fanon are considerable. The role their written works have played in delegitimizing the colonial project by both piercing the rhetoric of its delusional justifications and giving voice to its oftenconcealed but no less destructive consequences cannot be underestimated. For the purposes of undertaking case study research into either the lives of socially and economically marginalized

individuals or into the systematic processes of disempowering targeted populations, the insights of Césaire and Fanon in particular can aid in a more penetrating comprehension of, on the one hand, the origins of the attitudes that sustain such practices as largely taken-for-granted fixtures of the contemporary status quo and, on the other hand, of the propensity of such treatment to be responded to with a violence not wholly unrelated to the mechanisms of suppression themselves. This relevance can be seen, for example, in an examination of the Zapatista Army of National Liberation, a Mexican revolutionary organization committed to the autonomy of Chiapas, one of Mexico's poorest states and home to a largely indigenous population. An equally relevant situation developed in what came to be known in Canada as the "Oka Crisis," in which a longstanding land dispute between the Mohawk Nation and the Canadian government led to a violent confrontation over the expropriation of tribal land for the purposes of building a golf course in Oka, Québec, during the summer of 1990. In both instances Césaire's keen sense of the essential exploitativeness of nonindigenous regimes and Fanon's understanding of the violent temptations of colonialism's indigenous victims as well as his analysis of the actions and motivations on both sides of such disputes allow these and similar revolts and encounters in so many countries around the world to be seen less as isolated incidents and more as related manifestations of colonialism's tenacious and pernicious legacy. If the potential insights of this perspective cannot be expected to reduce the likelihood of further confrontations, it is perhaps because postcolonial theorizing's focus on the critique of such deeply seeded and pervasive antecedents to so much of the contemporary world's persistent conflicts implies a more radical transformation, politically, economically, and culturally, than but a very few are now prepared to contemplate, let alone attempt to actively achieve.

Edward Said and Gayatri Chakravorty Spivak

As undeniably influential were the writings of Césaire and Fanon on the development of postcolonial theory, both were writing from within the context of many current and active struggles for national independence from colonial powers. It was with the hindsight of those struggles—primarily focused, as they were, on the African continent along with a developing awareness of and interest in newly liberated and liberating forms of cultural and creative expression that set the scene for the more self-conscious development of postcolonialism as a recognized, specifically academic endeavor. Two of the most significant contributors to this development are Edward Said and Gayatri Chakravorty Spivak. Said's book Orientalism, first published in 1978, has become recognized as a key foundational work in postcolonial scholarship. Said's main concern is how the Western world comes to know what it does about the Far and Middle Eastern countries. Noting that the West has been writing about the East for almost as long as it has been aware of its existence, Said finds that the resultant image of the East consistently reflects and helps to maintain the West's sense of its own superiority over the East. Western scholars and creative writers, Said finds, have depicted Eastern people, along with Eastern religions and cultures, as mysterious, exotic, and vaguely dangerous. This set of views has become so deeply ingrained in the West that even the most concerted efforts to represent the East on the part of Westerners who have spent lengthy periods living in Eastern countries, or even by Easterners who have been educated in the West, have great difficulty transcending them. Orientalism, then, as Said develops the term, refers to Western representations of the East that end up having very little to do with the "lives, histories and customs" of nations located in the East. Of these lives and histories Said has little to say, because he understands this "brute reality" to be so obviously more magnificently abundant and diverse than any Western-situated effort to articulate it could hope to capture.

The significance of *Orientalism*, then, for case study research, especially insofar as it deals with the phenomenon of ethnic or racial marginalization, discrimination, and many other forms of collective subjugation, lies in its formulation of the ways the status of marginalized groups is closely connected to and supported by how knowledge about the group is produced, reproduced, and interpreted, and by whom. Reflecting back on his book, as well as on a portion of the varied and voluminous responses the work provoked, in an

essay published 7 years later entitled "Orientalism Reconsidered" (1985), Said refers to questions raised by Orientalism and its critics that go straight to the heart of some of the thorniest issues currently facing any number of such populations either in North America or any other part of the world. In light of the ongoing struggle to achieve cultural, legal, and economic sovereignty, in addition to a growing awareness that one of the key planks of the colonial platform has always been the organized and systemic exclusion of indigenous ways of knowing, Said asks how might it be possible to produce knowledge freed from domination and coerciveness from within settings so deeply encoded by oppressively dominant and coercive political structures. At issue, according to Said, is nothing less than the right of self-definition, through self-expression, for people whose voices have for so long been either silenced or misrepresented. One of the foremost challenges facing postcolonial scholars, in other words, is understanding the relations established not only between colonized and colonizing attitudes but also, more generally, between knowledge and power itself. Case study research is uniquely well suited to arriving at new and renewed insights into any number of individual or collective undertakings in the name of social justice, by carefully attending to who knows what as well as how different activities are undertaken and represented. Against the background of Said's discussion of the difficulty of already-misrepresented human groups being justly recognized, understood, and responded to, the comparatively finer focus of a case study is capable of providing not just a better understanding of this process but also the opportunity of challenging its inevitability through the choices that exist in the representation of the research itself.

Taking up the challenge of these issues in ways that implicate the work of postcolonial theorizing itself, Spivak asks, in a landmark essay by the same name, "Can the subaltern speak?" Originally a military term, *subaltern* was first used more generally by the Italian political thinker Antonio Gramsci before being picked up and developed by a range of postcolonial thinkers, including Spivak. Although there is some debate about just which groups or populations the term refers to, within the field of postcolonialism it tends to cover a range of people considered to be exploited, oppressed, marginalized, and/or discriminated against in ways that

significantly negatively impact peoples' agency and all-around quality of life. "Can the Subaltern Speak?" is an extraordinarily multifaceted and complex essay, but for the purpose of appreciating its more general contribution to the development of postcolonial theorizing, and its significance for case study research, it will suffice to focus here on a few of the broader strokes of its layered arguments. Responding to an India-based project known as "Subaltern Studies," whose initial aim, among others, was to introduce alternative, ostensibly more authentic narratives of Indian history than those most commonly available, Spivak is alert to the inherent danger of positing and supposing there to be a "true" or "real" subaltern voice and consciousness at the expense of more finely differentiated and necessarily heterogeneous historical realities. A significant consequence of Spivak developing this argument is that it contributes to the eventual answer to the essay's question, namely, that the subaltern cannot speak. What she means by this is not, of course, that members of subaltern populations do not speak, write, and create, and do so as articulately, deeply, and creatively as any other population or nation not so designated. Instead, her verdict speaks more to the extraordinary difficulty of articulating any knowledge that, as Said pointed out, is already so tightly circumscribed by "dominative" and "coercive" contexts, and so intimately interconnected with the exercise of political, economic, and social power, as to be heard in any but strategic or otherwise instrumental ways. However, the aspect of Spivak's discussion that is most significant for the purposes of case study research is the self-conscious vigilance with which she attends to the potential of postcolonial research itself to inadvertently or otherwise reproduce the very presumptions of power and authority it sets out to challenge. Spivak's conclusion, therefore, that the subaltern cannot, after all, speak, is not the same as concluding that her own postcolonial research has been unable to provide a voice for the oppressed. This is because Spivak knows better than to presume that she could or should have any right to attempt to do so. However, it is also because knowing that deeply systemic forms of oppression have an insidious potential to implicate even those most committed to its eradication requires paying at least as close attention to her own voice as to those she knows also need to be heard.

Critical Summary

As a theoretical context for case study research postcolonialism is uniquely suited to the investigation of a wide range of social problems but in particular to research into various iterations of discrimination and prejudice as well as systematic forms of inequality and marginalization that can be traced back to colonialism's regrettably enduring precedent. In more general terms, however, the value of postcolonialism for case study research goes beyond this by serving as an important reminder that the theoretic context of social science research projects, in particular, now inevitably raise questions of the presumed power and authority not just of knowledge but also of the very processes of accessing and assembling this knowledge. In short, it is a reminder that the very legitimacy of the research endeavor itself is implicated in systemic, long-standing, and often-unresolved issues of social justice and inclusion. It is in its insistence upon the need to continually reassess this legitimacy on the occasion of any particular research venture that postcolonialism's more theoretic investigations might be of most practical value to the continued relevancy and importance of case study research.

David A. Lynes

See also Postmodernism; Poststructuralism

Further Readings

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Postmodernism

Postmodernism rests on a critique of modernist representation, specifically the idea that concepts mirror reality, arguing that representations provide at best partial perspectives on their objects (perspectivism) and that cognition proceeds through representation that is mediated by language and historicity (relativism). Grand and totalizing theory is rejected in favor of local narratives and micropolitics. The privilege of unity and universality in theory and research is rejected in favor of difference and particularity. At the social level, ideas of convergence, coherence, and evolution and notions of causality are replaced by concepts of multiplicity, plurality, fragmentation, and indeterminacy. At the individual level, the modern concept of the cohesive, bounded, and unified subject operating rationally is rejected in favor of a decentered, fragmented, liminally open, socially enformed, linguistically constructed, contested, and multiple subject. At the organizational level, process is reasserted over structure, heterarchy and networking over hierarchy, play and novelty over discipline and predictability, speed and responsiveness over system integrity, the ability to learn over the content of learning, and radical change over incremental progress. Foundational knowledge and its pursuit, all forms of structuralism, superstructuralism, essentialism, and obsessive rationalism, a level outside or deeper than representation that would guarantee with certainty apodictic truth and resolve consensus, are replaced by *narrative knowledge*, in which knowledge is uncertainly formed and tentatively guaranteed between representations on the same surface level in a play of dissensus that includes desire, the nonrational, and the irrational.

That said, postmodernism is not antimodern so much as *para-modern*. It takes shape alongside the modern as an alternate, a simulation, even a perversion, a faulty version, an improper version (that celebrates its impropriety). Discussion of phenomena as "modern" can be traced to the 3rd century CE, and because the term derives from the Latin

modo ("just now") it implies that we are always becoming postmodern. Turned toward theory, postmodernism is paratheory—it questions the status and limitations of theory (including critique); it questions the rules by which theory is constructed and operates and the consequences of transgressing those rules; it blurs the relation between theory and practice; it considers theory, including itself, as a form of representation, and critique as a critical genre; it proceeds not through logic but paralogy and not through homology (the emphasis on similarities in pursuit of unity) but heterology (an emphasis on difference and fragmentation). It lays emphasis on discontinuity, fluidity, and becoming rather than continuity, stability, and being. It concentrates attention of technologies of representation, verbal, visual, informational, mechanical, and electronic. In doing this in art, architecture, literature, and some philosophical outputs it tends to adopt styles that embody these approaches—pastiche, improvisation, irony, and postirony collage and hybridity among them. As theory, philosophy, art, literature, or in whatever other form it appears, it constitutes a blurred genre.

However, any attempt at defining postmodernism must be undertaken with irony, or even postirony. So, bracketing the previous paragraphs, we must proceed with more than a little caution and a healthy sense of hubris to guide us.

Conceptual Overview and Discussion

Postmodernism (postmodern or postmodernist) as a term originated in the world of art, being used in the 1870s by John Watkins Chapman and in 1917 by neofascist Rudolf Pannwitz. Postmodern and postmodernism were used by religious philosopher J. M. Thompson in 1914 in the title of a journal article, and in the same field Bernard Iddings Bell used postmodernism in Postmodernism and Other Essays and Religion for Living: A Book for Post-Modernists, published in 1926 and 1939, respectively. After Thompson and Bell, postmodernist was also used by Australian critic Bernard Smith in 1945, and in the field of science physicist Lucien V. Alexis published the first volume of a series of Post-Modern Scientific Thought in 1929. Federíco de Onís discussed postmodernismo in Antología Poesía Española e Hiberoamericana in 1934, which Dudley Fitts echoed in Anthology of Contemporary Latin American Poetry in 1941. Historian Arnold Toynbee also used the idea of a postmodern age in A Study of History in 1939 (and further developed the concept in later versions of the book in 1947 and 1954), and American poets Randall Jarrell and Charles Olson used the term in 1947 and 1951, respectively. By the 1950s, the concept was being discussed in terms that prefigured the optimistic postindustrial society's view of irreversible change in ways of living by Peter Drucker in The Land of Tomorrow (1957) and as a similar but pessimistically viewed change in fundamental ways of thinking of society and self by C. Wright Mills in *The Sociological Imagination* in 1959. In architecture, the postmodern era, if not the term, was said to be born when the archetypal modernist Pruitt-Igoe housing development in St. Louis, Missouri—one of the International Style's "machines for living"—was demolished because it was deemed unfit for human habitation. In 1979, Jean-Francois Lyotard became synonymous with the term in its social sense with The Postmodern Condition: A Report on Knowledge. So, defining postmodernism, which has a separate life in so many distinct arenas, very much depends on which arena you are in, because it depends on how the *modern* is understood in that setting. Its definition is fluid, which is one of its distinct features, but similarly the definition is localized, which is another of its distinct features. This makes defining postmodernism impossible, but understanding postmodernism as localized and fluid does help define the term in a nondefinitive fashion. Postmodernism is a process, and part of its approach is to consider that definitions are not the start of exploration and experimentation but what arrests such exploration. So, setting our definitions aside, we need to begin with these signposts to provoke exploration.

Modernism (see also the Modernity entry) was a development of the Enlightenment project to emancipate humans from superstition, ignorance, and monarchical despotism authorized by religious values. Beginning with the 17th-century innovations of René Descartes, with the separation of mind and body, the reflexive "I," and systematic doubt, modernism set out to use the tools of reason and the new science to generate universal knowledge, not just about nature but

about the individual and society. As such, it assumed several different and often inconsistent forms. In philosophy, the position of rational critique, which was central to modernity's attack on superstition, was identified by Immanuel Kant with a need to be reflexive, because thinkers such as himself had to find a means of convincing powerful monarchs to ground their authority in reason and care for their subjects while acknowledging their own highly vulnerable position in civil society. Kant felt it was necessary for critical modernists to speak out, regardless of the risk, or Enlightenment would not progress. Furthermore, Kant's argument that all knowledge was mediated by subjective faculties of perception and that we cannot know things in themselves was built upon by G. W. F. Hegel, who argued that even the subject-object relation was not immediate to sensation and depended upon fitting into a system of experience. Some other aspects of the dialectical thinking of Hegel, recognizing the implication of society in the individual and the significance of otherness for identity, prefigured 20th-century ideas, and others, like the idea of knowledge unfolding teleologically to the end of history, provided the impetus for further critique. Social turbulence and the preservation of order, politically in the period following the American and French Revolutions up to the Year of Revolutions in 1848, and socially as a result of the urbanization following the Second Industrial Revolution, were major concerns. Socially, the idea of the individual began to take on significant changes, and new institutions—hospitals, asylums, prisons, factories, schools—and new instruments and technologies were developed for the management of individuals whose characteristics were being measured and recorded as never before under the influence of the positive social science of Auguste Comte, Thomas Malthus, and Saint-Simon. While the emerging rational machine ethic sought to liberate subjects from the limitations of being human in the cause of efficiency and progress, and the discoveries of Charles Darwin and Jean-Baptiste Lamarck on evolution were driving competitive social Darwinism, the reacting Romantic movement sought to liberate them through the perception of the *sublime*, that which brought the limitations of rationality into awareness. From

1880 to 1920, the ideas most culturally associated with modernism developed, but this period also gave birth to many of the ideas associated with postmodernism.

Some of the Enlightenment legacy encapsulated in modernism could be represented in the following terms. There is a relatively stable, coherent, knowable self who is both conscious and capable of self-consciousness; it is autonomous, develops over time, and operates in the same way for all humanity regardless of race, gender, physicality or religion—it is universal rather than particular. It is subjective, but through rationality it is capable of achieving objective knowledge. This knowledge is, in its most refined form, science, and regardless of the knower, as long as the methods are correct it can provide universal and timelessly true knowledge or laws about the world. If this knowledge is applied it will always produce progress and greater perfectibility. Anything can be analyzed scientifically—objects, species, actions, businesses, institutions, social relations, people—their principles discovered, secrets uncovered, mysteries solved, errors and faults eliminated, and their functioning improved. Because reason determines what is true, it is the proper basis for determining what is right and good. Freedom is only the freedom to conform to the dictates of reason, not the freedom to be irrational. Critical modernists, such as Jurgen Habermas, take issue with the definition of freedom, arguing that the unsaid often deserves a voice and is not necessarily irrational, because there are different forms of rationality, although technical, instrumental-calculative systems logic tends to dominate. Here the task of modernist critique is liberation from dehumanizing systems domination—the kind of reasoning that allows the elimination of faulty humans in the same way as faulty products or materials.

But for *systemic* modernists scientific knowledge is the apotheosis of all forms of knowledge, and scientists are considered as producing knowledge that is value free, neutral, and objective. The means of the transmission of knowledge—that is, language—is transparent, a window on reality, and it needs to be perfected as such in order to accurately mirror reality. The objects of perception and the words used to name them—the extratextual referents of the "text"—must stand in a precise and fixed relation in an ontology of being (see

the Poststructuralism entry, this volume, for a critique). These principles, along with some associated subprinciples, such as measurement, calculability, control, efficiency, and prediction, are drawn upon to justify social structures and institutions, political institutions, law, ethics (including the ethics of war), culture and aesthetics, economics, and public administration. The whole was the sum of its parts, and the primary metaphor of this systemic modernism would be that of the machine.

Aesthetic modernism—the modernist movement in art—began with a criticism of realism. Paul Cézanne, ultimately the most influential of the post-Impressionists, argued that reality was constantly in motion and that as light and shade shifted from moment to moment the object itself—a tree, a cathedral, a field of flowers—changed, and the new art attempted to capture the change, the sense of motion and uncertainty. Cézanne was modernist in that he thought that underlying this ceaseless change was a unity, an abstract set of principles that could explain it, a unified field theory-for example, cones, spheres, and cylinders. Picasso took this further into Cubism, with abstraction and simplification as core artistic principles. The view contained the viewer and multiple perspectives, thereby breaking with traditional humanism that privileged the viewer rather than seeing it as part of and not exceptional to reality, prefiguring postmodernism.

Uncertainty as a principle combined with the recognition of the unrepresentable. There was a long history of use of the term *sublime* to indicate the effect that great art or architecture achieved that was more than the sum of its parts, an indication of the limits of a rationality that was essentially human, but modernism regarded this as the unrepresentable and thus as a challenge set about presenting it in an abstract manner. A similar attitude can be found in contemporary approaches to tacit knowledge that see it as available for and capable of explication. Although there was some ambiguity about this in its abstract form, the subconscious was still seen as the underlying source of consciousness. In postmodernism, the sublime was taken as an important theme, but its unrepresentability could be engaged only in the sense of opening up, an impressionable negativity, rather than the positivity of the engagement typical of modernism.

Commodification was another important theme, initially developed by Karl Marx, as mass production and reproducibility threatened the uniqueness of the work of art: reducing it in reproducing it. Marcel Duchamp, by using ready-made items in his "sculptures," challenged the nature of the unique work of art and drew attention to setting, place, and reception in the art world—which, ironically, embraced his challenge and turned his creations into expensive and revered exhibition pieces. Duchamp in fact drew attention to the work of art as Event—a combination of product and staging and another important philosophical concept to be picked up and transformed by postmodernism.

Friedrich Nietzsche argued that an element of every moment is encountered by us as new, and as ahistorical, and must be faced accordingly. That this moment, a moment of forgetting, where connections are irrelevant, will continually return with a ceaseless sense of newness—the eternal return—is inevitable. We repeat unhistorical moments as we develop through time; therefore, history should consider the unique and different ways in which this moment is attained and repeated: its novelty and newness, its reproducible unreproducibility. This was the basis of genealogy as a method of difference taken up by Foucault (see Poststructuralism entry, this volume) and for postmodernists was not the Groundhog Day-style endless identical repetition of everything that Heidegger (and others) read it to be but a celebration of the new in each encounter. In other words, it is the newness that repeats as new, so recurrence is a matter not of identity and repetition but of difference. This difference is apparent as well as real and the distinctions between the two become blurred, so here we have the genesis of concepts that are central to postmodern philosophy: difference, repetition, and simulation. It is not the historical content of a work that constitutes its uniqueness, but the way in which that uniqueness is differentially and relationally realized in every moment of every repeated encounter with it that is always different. A shift from the meaning of the art "text" to the reader's interpretation of the text is significant here, but the reader is increasingly understood as a dynamic spatial and temporal, physical, and mental site rather than either a passive or active unitary subject—in other words, the unhistorical moment is not outside history or corporeality.

Modernism, if we take the literal definition of the word in combination with Nietzsche's view, is always a now, distinguishing itself from a previous now. To recognize itself as now it must be aware of itself as being after and against a previous now. It is post-now—but ironically it can determine its newness or "nowness" only in relation to what has passed. In other words, as Jean-Francois Lyotard notes, it has to be postmodern before it can be modern. A different way of looking at this is to say that time and the experience of time are undifferentiated and in flow. We begin to carve up time into moments, periods, ages, and eras, and we make divisions, decisions about what to include, what to measure, and so on. This differentiated time enables us to create objects and events in time, and to establish new relations in time, but it is a striated time that we have created out of the smooth flow of temporality. When we stop treating fabricated time as real and note how it is fabricated and what those effects are, we return to the undifferentiated flow. Thus, the deconstructive strategies of postmodernism are an attempt to release the appreciation of time as flow, time before striated time. In this sense again the postmodern is not the end state of the modern but a state prior to the modern, constant nascence or becoming.

Important in postmodern thought is openness to otherness, and it critiques reason for being indifferent to the other. Reason does not accommodate the different, that which does not fit in, or the uncertain, and it represses or excludes the anomalous in order to maintain its certainty. This is one reason why crimes such as the Holocaust can be committed and rationalized. Lyotard identifies two "false" postmodernisms that fail this test. The first is anti-modernism, which opposes itself to the modernist desire for experimentation: It is conservative, looks for a return to tradition and traditional values in politics and criticism, and may nevertheless appear radical in its "back-to-basics" approach. The second is eclectic postmodernism, the superficial kitsch variety that consumes the products of different cultures and assumes itself internationalized: One individual may live in Buenos Aires, wear Italian suits and French perfume, watch cowboy movies, listen to reggae, and eat McDonald's for lunch and sushi for dinner. Knowledge is as commodified and trivialized as a TV game show and transmitted as quickly via the Internet. What, then, are the "real" concerns of postmodernism?

Lyotard is concerned with language, ethics, and justice. He argues that the idea of the sublime, which shows us the limitations of rationality by being ever present but inexpressible, is critical for demonstrating the instability of monolithic modernistic constructions; theories that attempt to unify and explain everything, even at a high level of abstraction; and master concepts such as "progress" and "individuality." Modern "metanarratives" or "grand narratives," inherited from 19th-century philosophy and highly visible in modern art, politics, and sociology, are no longer fully believable—we should be incredulous toward them. More important are those narratives that examine the important differences in the way the eternal return is actualized—local narratives or petites histoires. Looking more closely at the workings of language here, Lyotard notes that there is always an element of inalienable otherness in our accounts of the world—even at a personal level we cannot commit to a sentence the fullness of our experience, which is inevitably different from that of the other. This differend can never be removed, although we may find ways of bridging it. True consensus is therefore impossible, and justice can never be done in any full and final sense; when things are justified, difference is rendered sameness. What is important, then, is continuing exploration, experimentation, and dialogue to deal with difference—dissensus—in every situation, rather than consensus that depends on concealed power instead of shared understanding for the effectiveness of its bridge. Lyotard also argues against the inhuman—an effect of modernism that dehumanizes in externalizing moral choices and renders people as machines. However, he also sees a positive inhuman—those more instinctive, animalistic, and unconstructed libidinous tendencies, based around a desire that is a desire not for a commodity but exuberance, a desire to connect and relate, that are often regulated out of us and suppressed.

Jean Baudrillard argues that understanding representation has four stages: (1) as a mirror on reality that may need some correcting but is corrigible; (2) as a recognition that the mirror is a mask that distorts reality; (3) that there is no basic reality, but

it is created in the representation; and (4) that even this is problematic—even constructed reality is no "reality" but only a simulacrum—a copy of an original that does not exist. When these simulacra circulate, and rapidly, we have a situation of hyperreality—more real than the real, overloaded with information we cannot use or process. In the process, reality gets nullified and extreme events appear normal. For example, if we watch a football game on TV, have immediate commentary and instant playbacks, see the action from all sides, get pundit analysis, and can even pause the live action. We are bombarded with information that fills the space in front of us. However, when we go to a real game we sense what is around us with a richness and immediacy totally lacking in the TV game, yet may well feel uncomfortable—we miss the information, we want to know "what happened." We thus become displaced from events and lose our ability to judge but we move on quickly to the next bit of information. Looking at value, and critiquing Marx by extension, Baudrillard accepts the idea of use value—that is, that things are valued in terms of what they do for us, such as valuing a half-liter of water because it is necessary for the body to function. Exchange value recognizes that context and circumstance, including investment conditions, risk and power, and so on, affect the value of the same commodity in time and place; so, a liter of water may have greater value to a wanderer in the Sahara Desert than a hiker in Wordsworth's Lake District. However, there is also sign or symbolic value. This relates to the institutionalization of art, for example, whereby useless objects (e.g., Duchamp's famous urinal) can acquire enormous cachet. Other examples of the institutionalization of art include instances in which the cheap reproduction of copies can enhance the value of the original work, or a half liter bottle of Perrier, Ty Nant, or the even more stylish offerings of mineral water available are sold at an expensive price. Signs here say something about us, and we use them to construct our selves, because we cannot know who we are directly. Thus, we become addicted to signs and develop identities that are based on images (words and pictures), not substance, in a world of simulacra where people, organizations, and governments have identities based on blueprints or copies for which there is no original.

Deleuze, in his own writing and his work with Felix Guattari, is concerned with features of

societies of control and how this is achieved and resisted. Deleuze argues that language use can be majoritarian or minoritarian. Majoritarian languages tend to determine, organize, define, center, and coerce, to normalize their discourse as hegemonic. Difference is reduced or suppressed; gaps and spaces are to be filled or removed some other way. Minoritarian languages, however, inhabit the spaces, are generated from fissures in the standardized normalized languages, expressing difference and mobilizing it. This destabilization of language is also reflected in different approaches to knowledge. Deleuze argues that modern approaches to knowledge are arboreal in that they draw different sources into an abstract and general root that develops norms and creates the trunk of philosophical consensus and then sophisticates into different disciplinary branches and practices that are justified because they are varieties of the same. Instead of this tree model, Deleuze prefers the rhizome—a network with no centers, just many nodes, capable of connecting in any direction at any time, developing new nodes, and equally capable of separating. Rhizomatic knowledge may come from any direction; any link may be activated more or less. Particular agents behaving rhizomatically, intellectually, or socially can be said to be nomadic. This connects to Deleuze and Guattari's idea of the schizo, the agent that recognizes its fragmentation as its very fluid identity rather than seeking incorporation into the forced unities of capitalist identities. Consideration of signification leads to the idea of the territorialization and deterritorialization of the sign, which is illustrated by the case of capital. Originally, trade was a direct exchange of one good for another, which came to be replaced by a token (metal money) that itself had value. Paper money was a written undertaking to provide a specified amount of precious metal on the bearer's demand, so the symbolic process began to develop. However, the same notional amount of money as a paper or electronic symbol converts into different purchasing power in different contexts. Money as a promise is deterritorialized; the same amount of "promise" reterritorializes differently in London or Kinshasa, even in different areas within the same broad region. The actual movement of virtualized capital is physically accelerated through information technology, such that funds can be

deterritorialized and reterritorialized quickly. However, economics is only one area where this metaphor can be utilized, because culturally ideas are owned and disowned in the same way-and often the process can be more difficult. Of the many concepts that Deleuze uses that are valuable, his understanding of the Event is also important. Here Deleuze distinguishes between those aspects of Events that happen, that may be planned, staged, or just occur, but may not produce change in themselves, and the more deterritorialized dimension of Events that by definition produces an irreversible change in thought—after an Event, things cannot be the same anymore, and it is not possible to say quite how or where the process stops. For example, 9/11 was clearly an event; things happened that cannot be denied. However, beyond the experiences of people in Manhattan, others all over the world were affected, made responses, struggled with its implications for them, politically, socially, spiritually—it was deterritorialized as an Event and reterritorialized in specific understandings, strategies, and reactions, such as the invasion of Afghanistan and the second Gulf War.

Application

Postmodern ideas such as the ones just described have been applied in particular to issues of consumption and identity in the development of global capitalism and related issues of ethics and politics that attempt to avoid the traps of modernist universalizing tendencies embedded in language and signification. For example, capitalism is seen as having a historical and paradoxical need for constant growth and further accumulation. This produces the need to find new forms of flexible accumulation and therefore new spaces—geographical and cultural to exploit, following deterritorialization. The acceleration of the development of technological and information systems has added a new dimension to this, helping to reach more people and more places quicker and faster. Economies are economies of signs, space, and time, not just of material value. Information and communication also combine in "immaterial labor," producing a service, cultural product, knowledge, or communication. In short, under modernism we learned to act like machines; now we learn to act like (networked) computers.

Methods advanced by postmodern thinkers involve thinking beside rather than against conventional methods, looking for inconsistencies rather than unities (Lyotard's paralogy) or accelerating tendencies and inventing cases that embody them, being more modern than the modern, to see what happens when they implode (Baudrillard's pataphysics). Regarding case study analysis, Lyotard would direct us toward the collection of local narratives and the identification of the differend between them and the accommodations of that differend; this is in itself a call to pay attention to the dynamics of power and the ethics implicit in these cases. Baudrillard would alert us to the simulated nature of case study work and the intersecting vectors of simulacra that populate the case site and destabilize its boundaries: its virtual nature. Deleuze and Guattari would caution us not to seek the arboreal roots of meaning in case analysis but to accommodate the processual rhizomatics of case development and the nomadics of identity involved as well as the differentiation between the actualities of what happens in the development of the case as a case and the virtual change instigated in the case as Event.

Critical Summary

Various criticisms have been leveled at postmodernism, yet postmodernism is itself not an oppositional critique launched from a counterposition of alternate certainty, and insofar as it is constructed as that by its critics, in order to facilitate critique, they miss the point. Instead, postmodernism works from within modernism, attaching itself to the processes of modernism in order to reveal them and extend them into visibility, in a viral strategy. It differentiates, and it instantiates breaks that are always already within modernism, but modernism occludes its own fragmentation in its pursuit of universality. Of specific criticisms, the most common, and substantial, are as follows:

It rejects reason. This is not accurate—indeed, postmodern thinkers use reason extensively in their arguments. They reject specific forms of rationality that depend upon the dogmatic and arrogant presumption of reason that it can access timeless certainties. They also insist that reason contains nonreason and the irrational.

It denies reality. This criticism is leveled on the grounds that reality is socially, linguistically, historically, or culturally constructed. Again, this is erroneous: Revealing the way in which reality is constituted does not make it any less real, or amenable to wishing away. Indeed, if there is no timeless, inalienable quality of reality for comparison and validation, constructed reality is more real. Furthermore, that which is real may not be representable but can still have important effects, so the real needs to be considered alongside the not-real, the imaginary, the virtual, and the actual.

Meaning is infinite (absolute relativism). This, too, is a misrepresentation. Postmodernism simply denies that there is ever just one true meaning and that the nature of multiplicity is therefore to be explored, not closed down.

Anything goes—all meanings have equal value. This suggests that because (irrational) postmodernism has no way of differentiating between and valuing perspectives, it is unethical and amoral. On the contrary, postmodernism argues that the question of values must remain open, even when decided—and moral ethical challenges are a matter for eternal return.

Stephen Andrew Linstead

See also Modernity; Poststructuralism; Simulacrum

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Postpositivism

The idea that there is an external reality that can be described and explained objectively and in a value-free manner is the key tenet of positivism. Positivists believe in empiricism; observation and measurement are the core of the scientific endeavor in this paradigm. However, postpositivists hold the view that humans are biased in their perceptions of reality and that hence we can approach the truth of reality but can never explain it fully. Thus, postpositivism is a research paradigm that emerged in response to the criticisms raised against logical positivism and its supporting epistemology.

Conceptual Overview and Discussion

Many philosophies have shaped social science methodology in the last 100 years. Two in particular—positivism and postpositivism—are currently being debated for their efficacy. In positivism, phenomena are described. This philosophy holds that knowledge is created through direct observation and measurement. Thus, it adheres strongly to the rules of formal logic and scientific method, with a hypothesis being confirmed or rejected on the basis of data. Among the numerous examples of positivism used in social science are the behaviorism studies of Skinner-era psychologists and the positivist methodology advocated by economists such as Milton Friedman. The positivist paradigm consists of five key elements:

- 1. An objective reality exists independent of an individual's perception.
- 2. Phenomena that cannot be observed directly or indirectly have no place in research.

- 3. Scientific knowledge is created only through accumulation of verified facts.
- 4. Science is deductive in that hypotheses are derived from scientific theories and are subjected to empirical testing.
- 5. Researchers should be value neutral to achieve objectivity.

However, the fact that people think, have feelings, communicate through language, attribute meaning to their environment, and have different beliefs and personal characteristics makes the positivist paradigm suspect. Also, social science theories are unlikely to apply across time and place and cannot be the sole source of hypotheses. Put differently, knowledge is relative and shaped by a variety of factors, including the cognition of the subject and social and cultural conditions, as well as symbols and their interpretations. Although we all live in the same world, we perceive its reality differently. In other words, scientific knowledge must be developed through inductive as well as deductive empirical study, because social order and business transactions are produced through interpersonal negotiations and shared experience. One makes patterns of meaning about the world due to this shared experience and assumes these patterns to exist.

Postpositivism recognizes that the complexities of human behavior make it difficult to isolate cause and effect and that there may be inherent bias in the observer despite the appearance of objectivity. In conducting research from a postpositivist orientation the research methodology is chosen accordingly to encompass the diversity of processes inherent in the production of knowledge. Instead of relying on a single, imperfect type of experiment a postpositivist approach draws on multiple methods of observations. These different measurements are triangulated in an attempt to correct for problems of validity and bias. Postpositivists hold that there is no way to determine the absolute truth, that the closest one can get is to triangulate using different approaches to the problem. It is also acknowledged that the strength of one method often lies in an area of weakness of another method. Among the types of triangulation are *strategic* (i.e., the use of multiple research strategies), metric based (i.e., examining the differences and similarities between indicators and constructs), and *methodological* (i.e., the use of multiple methods to assess relationships).

Although both positivist and postpositivist studies make use of triangulation, the underlying assumptions in the triangulation process differ. Julie Wolfram Cox and John Hassard discuss these differences in the context of organizational research. They explain that positivist triangulation involves neat boundaries that secure the object of research. Positivist triangulation assumes that the object can be captured, that the researcher can be separated from the observations, and that the observations are universal. On the other hand, postpositivist approaches include more numerous critical examinations of a problem. Because the truth is never entirely understood, the emphasis of the postpositivist view is on falsifying, rather than verifying, hypotheses. Thus, in the context of triangulation it has been suggested that greater emphasis be placed on the perspective of the researcher, in terms of following nomothetic lines, taking an ideographic overview, and finding a specific angle.

All in all, postpositivism assumes an intersubjective world where reality is a social construction and the aim of research is to uncover the meaning of this reality as understood by an individual or a group. Doing so requires full involvement of the researcher with the research subjects. Ethnography, participant observation, interviews, focus groups, conversation analysis, and case studies are some of the methods used for analysis. The mixing of methodologies is viewed as strength, unlike in the positivist tradition.

Application to Business and Management Research

Because business and management involve social interactions, explanation of these interactive phenomena cannot be given just by arranging facts in a chain of causality. An appreciation of different meanings that people place on their experience is necessary for an understanding of a socially constructed reality.

A services marketing study by Charles Blankson and Stavros Kalafatis reveals the complexity inherent in postpositivist approaches. Here, the positioning strategies of internationally and multiculturally oriented service brands (e.g., credit card brands) were examined. The authors use a triangulation method consisting of in-person long interviews, secondary data, content analysis, and surveys. The work could be used to determine the disparities between management's positioning strategies, the firm's actual practices, and the consumer's perceptions of the strategies, thereby allowing for adjustments to market positioning. Their findings show that there was no single positioning strategy that was the same across the four brands examined. Thus, the postpositivist approach to research may not lead to a well-defined answer, although it does offer a nuanced view of the subject.

The postpositivist viewpoint has gained favor over the positivist one in the last few decades. Gordon Foxall explains that a movement toward postpositivist pluralism has marked consumer research since the 1980s, yet it is difficult to find business and management case studies that specifically examine postpositivist triangulation. Robert Dahlstrom and colleagues examine 844 academic marketing research studies for their strategies, measures, and methods to see whether there was a shift in the types of research performed and methodology used. They conclude that there is not yet much published literature to assess multitrait methodology.

It may be possible, however, to make inferences and recommendations on the basis of existing studies. For example, B. P. S. Murthi and Sumit Sarkar reveal that determination of customer preference requires integration of multiple sources of data, assessment of inference methods about customer preference, and an examination of the nature of online business. They state that all of these factors must come into play when making conclusions about matching to customers. Triangulation has the merit of helping to determine good feedback mechanisms or metrics for evaluating both the learning and matching processes.

In another example, Chrysanthos Dellarocas looks at online feedback mechanisms. The online environment means that new challenges have arisen in regard to utilizing customer feedback. Variables include types of feedback history, feedback honesty/dishonesty, and feedback incentives. Sellers need to resolve the importance of these variables in order to best utilize feedback

data. Dellarocas points out that game theory plays an important role in studies of online feedback mechanisms because it can involve a large number of self-interested and presumably rational agents whose financial interdependencies and ease with online feedback mechanisms can be manipulated.

Critical Summary

Postpositivism assumes that absolute truth can never be found, that reality does not exist in a vacuum and hence is a creation of the individuals involved in research. In other words, reality is multiple, subjective, and mentally created by individuals; many constructions of a reality are possible because reality's existence is influenced by its context. In the context of organizational studies, ontology is not amenable to the physics-based research epistemologies that still prevail in many business and management research. This contention has given rise to a paradigmatic shift in business research approaches from positivism (i.e., natural science-like methodology) to postpositivism (i.e., allowing for examination of multiple variables, multiple methods, and an acknowledgement of bias). This shift has allowed for a more nuanced view of research problems that often requires a qualitative approach, especially in management, marketing, and organizational studies. Nonetheless, it is important to note that this approach does not always produce well-defined answers to the problems of the business and management world.

Basu Sharma

See also Ontology; Philosophy of Science; Postmodernism; Triangulation

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Poststructuralism

The term poststructuralism came into use in the 1960s and related to a response to the dominant intellectual movement in France of structuralism, which is common in semiology, anthropology, psychoanalysis, and sociology. Poststructuralism's very nature is to defy definition, because it was concerned with negativity—the ability to recognize and engage with that which escapes efforts to represent it—yet is necessary for representation to work, even at the perennial "just-out-of-focus" periphery of peripheral vision, the abject and the sublime. It was also concerned with the underlying fluidity of apparently stable systems, which those systems effectively suppress yet on which they depend to function. Poststructuralism, though neither a theory nor a movement as such (Jacques Derrida and Michel Foucault disagreed on this point and were estranged for 15 years, although they eventually reconciled), demonstrated in various ways the fragility and paradox of representational systems, especially their effects in creating appearances of truth and objectivity and the dangers inherent in deploying existing unificatory classification schemes and concepts. Rejecting both the abstract determinism of structuralism refracted through the work of both Sigmund Freud and Karl Marx, and the humanisms of the previously dominant phenomenology and existentialism developed by Maurice Merleau-Ponty and Jean-Paul Sartre, poststructuralism drew particularly on Martin Heidegger and Friedrich Nietzsche to initiate a "linguistic turn" in response to the perceived crisis of representation in the social sciences. It was particularly concerned with revealing how

the subjects of representational systems, such as writing, discourse, and painting (including the authors of those representations), were themselves products of signifying processes, and how unity, order, and identity were themselves effects of systems that unified, ordered, and disciplined, rather than being their origins. Subjects, including psychological subjects, were seen as sites of meaning rather than its source, where traces of other signifying systems, texts, or discourses interleaved in an assemblage of subjectivity. Analytically, it shifted attention from the interpretation of phenomena to the representation of phenomena and the constructive reading of those phenomena, with a corresponding redistribution of "author" ity toward readers. Accordingly, it was associated with revealing paradox, contradiction, and fragmentation within apparently cohesive signifying systems and was assigned both negative (nihilistic) and positive (creative, opportunistic) appellations, despite its own criticisms of the restrictions of binary thinking. From its origins in the humanities, philosophy, history, and literary and art criticism in particular, this concern with subjectivity and representation impacted Anglo-Saxon sociology, psychology, and politics in the 1970s and 1980s and business and management studies in the 1980s and 1990s. It was responsible for breaking down disciplinary boundaries and what Clifford Geertz called "blurring genres," inaugurating transdisciplinary practices of theory and criticism, stimulating the growth to maturity of the nascent field of media and cultural studies and a general shift from structure to process concerns.

Conceptual Overview and Discussion

Poststructuralism emerged from *structuralism*, an intellectual current that had been developing since the 19th century under the influences of Marx and Auguste Comte in particular. *Structural functionalism*, influenced by Émile Durkheim and the social anthropology of Bronislaw Malinowski and Alfred Radcliffe-Brown, developed to a dominant position in sociology and social anthropology in the second quarter of the 20th century. *Linguistic structuralism*, developed from the ideas of Ferdinand de Saussure, provided an alternative model that influenced Russian linguistic formalism

and, most significantly, the structural anthropology of Claude Lévi-Strauss. Rejecting the functionalist argumentation that made anthropological anachronisms somewhat difficult to contemplate, influenced by Freud and Marx as well as Saussure, Lévi-Strauss sought to uncover the unconscious structures behind myth and ritual that revealed deeper, and more universal, human concerns (e.g., kinship). Saussure made a distinction between langue (language as grammar, a system of rules) and parôle (language as speech) that emphasized that the meaning of a word or sign was not fixed but arbitrary, depending on the differences between linguistic terms within the system. Rules related and patterned difference, but they could be changed. Thus, a dynamic concept of structure was introduced into social anthropological thinking, and Saussure's semiology, the study of sign systems, had a similar impact on linguistics and literature. Saussure argued that a sign consisted of a *signifier* (at the level of parôle) and a (concept) signified (at the level of langue). The signifier denoted a signified but, according to the relations between signifiers in a particular system, or code, the denotation could have very different connotations. The code could be revealed through structural methodologies. The impact of this thinking across disciplines in the postwar period was enormous, and the eagerness of each discipline to elaborate Saussure's basic scheme to "tell the code" of its object reached a peak in the early 1960s in France with the cultural semiology of Roland Barthes, the structural Marxism of Louis Althusser, the psychoanalysis of Jacques Lacan, and the later structural anthropology of Lévi-Strauss. The middle-period work of Michel Foucault in which he developed his *archaeo*logical approach to knowledge was also heavily influenced by structuralism.

By the mid-1960s, however, the constraints of structuralism were becoming too restricting. Derrida, in his seminal book *Writing and Difference*, exposed the contradictions in the work of Saussure and Lévi-Strauss and, by extension, in structuralism as a whole. Using a technique that came to be known as *deconstruction*, he subtly demonstrated that both writers committed errors that rendered their conceptual schemes unstable. Tellingly, he revealed that these errors were inevitable effects of language, and Western philosophy itself was bedeviled by the same problems. Derrida's

critique came not from an opposing thought scheme outside the schemes of Saussure and Lévi-Strauss and so was not typically dialectical; it came instead after a close reading of their work in its own terms, revealing questionable assumptions upon which their arguments rested in order to achieve their effects.

These assumptions included the privileging of a metaphysics of presence. By this Derrida meant that Western thought prioritizes the immediacy of access to meaning and grants authenticity to those representations that emanate from a source that appears closest to the immediate experience of meaning. In particular, we see speech as being more important than writing, because speech is held to be the direct expression of consciousness. There is always a semantic anchor, just outside the text, that fixes its meaning—such as authorial intention, for example, or an eyewitness account. Derrida demonstrated that the processes undertaken when one is writing are far more than the inscription of already determined meaning, the practices of an already made-up mind. Writing involves ordering, sequencing, prioritizing, marginalizing, parenthesizing, dividing, combining, and other processes that are actually the processes of thought itself. Indeed, if thought hadn't already "written" (or ordered) the world for us, we could not recognize it. So, in fact, "writing" as a process is *prior* to speech, and what Derrida set out to do in his project of "grammatology" was to look for the "writing" processes operating and constructing the world in different sign systems. When Derrida said, in effect, "There is nothing outside the text," he alluded to the fact that, to be knowable, phenomena are "written" in some way and therefore always constructed "textually."

This led Derrida to argue that Saussure's idea of language as a system of differences between terms did not go far enough. For a term to be meaningful, he argued, it must differ not only from other terms but also from the object, concept, and so on, to which it referred. It deferred to the absent reality, by drawing our attention to its absence, and making that absence present in the signifier. For example, we relatively rarely talk about the here and now, but we refer constantly to the past and future in present activity. Meaning within such a double movement that Derrida called *différance* is

never fixed and ultimately must be undecidable. That does not mean we cannot make meaningful decisions but that they should not be taken to be final versions of the truth in any absolute way. Furthermore, when one term differs from other terms, some of those terms are taken to be opposite in meaning. We constantly create binaries in this way, and they are very useful. However, in language use the positive deployment of one term is not just a statement of unity between the signifier and the concept described (what is called a logic of identity and opposition—an either/or logic) but a suppression of the other term of the binary (in particular, and all other possible terms in general). However, this abject term is necessary for the primary term to have its meaning: It supplements it (a logic of the supplement—a both/and logic). This hierarchical relationship of terms means that language is ineluctably imbricated with power relations—they are not separate and social or political but are part of the way we create our world in language. This has two important consequences. The first is that supplementarity indicates that identity is given in relation, not as an origin, and is therefore created in "otherness" by us locating ourselves in the language(s) of the other(s). Second, the movement of différance and the undecidability of meaning paradoxically give power to human beings to decide for themselves rather than having to defer to externalities or abstract principles to determine meaning, but as result they place upon humans an ethical responsibility. Social systems tend to suppress the dynamics of différanceits play—that open up this power and in so doing create the conditions for the abrogation of this ethical responsibility and the emergence of unethical societies, institutions, and organizations. In Derrida's later work he focused more on the ethical and political implications of this, but his analysis always had ethical and political dimensions.

Michel Foucault studied total institutions in his early work, which led him also to consider power in terms of language and discourse. He argued that power and knowledge are inseparable (referring to power/knowledge) and, through language and associated institutions and practices (discourse) complex differential power relationships extend to every aspect of our social, cultural, and political lives. This involves taking up (or refusing) often contradictory subject positions in relation to discourse.

When it is effective, discourse secures our assent (or compliance) not so much by the threat of punitive sanctions as by persuading us to internalize the norms and values that prevail within the social order. In his later work Foucalt considered forms of confession, examination, and surveillance (including self-policing), the ways in which individuals are rendered visible and held accountable in societies, and the ethical dimensions of such a subjectivity.

Foucault's concept of *discourse* is not the usual, accepted use of the term. A discourse for Foucault is a regulated system of statements. There are discourses of medicine, economics, history, politics, and so on, but these have also competing discourses within them. An example of how discourse can affect our lives at the highest levels is the development of "enterprise discourse" in the United Kingdom in the 1980s, under the leadership of Margaret Thatcher, as opposed the dominant postwar "welfare" discourse. The former gained political support, which was used to deregulate markets, introduce mechanisms for individual choice and responsibility into public administration, change educational and economic institutions, and provide material incentives and persuasive rhetoric for citizens to become more enterprising. The idea of the enterprising subject became normalized.

Foucault argued that struggles between discourses are common in all periods of history but that the nondominant discourses get forgotten. History not only could have been different, it could be seen to have in fact been different from the perspective of these silenced discourses. Discourse is always inevitably open-ended: Texts refer to other texts and other ideas (Roland Barthes and Julia Kristeva called this intertexuality). Power, luck, circumstance, coincidence, and even error all play a part in the emergence of a discourse to prominence. To resurface alternatives, to understand the fragmentary nature of the historical reality that discourse presents as unity and how individual subjects became disciplined into a normalized subjectivity, Foucault adopted a method of genealogy—a detailing of how things came to be in a particular relation at a particular time and how they have changed over time. Foucault was also adamant that power always implies resistance—indeed, he argued that resistance precedes the exercise of power because power would not need to show itself if the world were totally malleable. Foucault argued that power is everywhere, and it operates in a capillary fashion, with small changes being capable of magnification and large changes capable of being locally obstructed or diverted. Much of this resistance can be invisible. Foucault saw resistance not simply as opposition but as that which eludes incorporation into polarities.

Foucault's work on disciplinary power that holds modern societies together and maintains social control is perhaps his best-known contribution. Recalling that the individual subject is an empty site—an intersection of discourses—power operates discursively, not to constrain and restrict but through the creative construction of "new" capacities and modes of activity rather than the control and limitation of the present. Understood in this way, power does not come from above, emanating from a sovereign or a state; neither is it the property of an individual or class. Instead, it circulates and can be found everywhere. Instead of power and knowledge being separate, with knowledge being the tool of power, the exercise of power creates and causes new objects of knowledge to emerge. It redefines and redraws boundaries, opening up new possibilities. A power relationship in this way is a mode of action that does not act directly and immediately on others but reshapes their actions and the conditions of their actions that work indirectly on consciousness. Every power relationship implies a potential strategy of struggle; power is resisted, but also called into being, by the recalcitrance of the will and the intransigence of the desire for freedom, because if not for these the exercise of power would not be necessary. For Foucault, the analysis and questioning of power relations comprise a permanent and necessary political task inherent in all social existence.

The area of Foucault's work most directly relevant to case study research is his work on the disciplinary society, which began with his investigation of the development of the prison as a more effective means of punishment and control than torture and execution. For Foucault, the success of new carceral regimes made them models for social control in factories, schools, and hospitals as these institutions developed in the 19th century. This was not planned in the way that best practice might be disseminated: Foucault's *Discipline and*

Punish shows how a variety of techniques and institutions developed separately and, often for very different reasons, came to converge in the disciplinary system.

According to Foucalt, a "disciplinary" society deploys three main control techniques: (1) hierarchical observation, (2) normalizing judgment, and (3) examination. Considerable control over people can be achieved merely by observing them, especially if they are in one place. At its simplest, this principle can be seen in the panopticon designed by Jeremy Bentham, where a guard in a single central tower, invisible to the inmates, who are in backlit circular cells around the perimeter, observes everything. This is not realistic in most social and organizational activity, so the role of observer is distributed hierarchically across different levels, between which data and information are passed, but the systems remain panoptic in principle.

Disciplinary power also works by specifying and normalizing certain standards, controlling people by what they fail to do rather than what they do. The system then operates to correct deviancy from the norm rather than to control adherence to the norm. Norms are often quite tightly specified, and the boundary between the normal and the abnormal—sick or healthy, sane or insane, honest or criminal—can be quite finely drawn yet have significant consequences once crossed. The standardization principle extends across society, covering such things as product specifications, service delivery, processes, educational levels, and professional competence.

The key technique for regulating the dynamics of normative compliance and hierarchical control is to render the individual subjects being assessed more fully visible by examining them, in different ways. The examination generates true knowledge of the subject: It reveals what the subject does not know, what he has done, or what his medical state is, places him in a category and directs his future behavior—toward, for example, further study, re-sits (to "sit" or conduct a certain practice or therapy again), practice, therapy, or a pharmaceutical regimen. This is the close relation of power and knowledge at work through and in control. Examination is the complement of hierarchical observation in panoptic discipline, and it enables its extension into other areas of social life. It embodies the principle of the panopticon that if the inmates believe they are being watched, the fact that they *could* be being watched affects their behavior as much as if they were watched all the time. The monitoring process then becomes internalized rather than imposed by external constraints as the inmates become self-policing subjects. This internalization process has had considerable impact across the social sciences beyond its obvious application to criminology, in the study of the range of forms of panoptic discipline and the shaping of subjectivities.

Individuals who have been examined in various ways become part of a "field of documentation" they themselves are a "case," existing through their records, which begin from birth as medical dossiers and extend to educational attendance and performance, employment records, demographic and political records, financial details, record of commercial transactions, criminal records, and so on. They can be used as scientific evidence or as a basis for "care"; many offenses against human rights are committed by individuals who have good intentions. The existence of such records both forms a basis for case study research, in terms of the archived content it represents, and invites interrogation in terms of the processes by which it was produced and its "truth effects."

Significant writers associated with poststructuralism include cultural critic Roland Barthes; literary critic Paul de Man; political sociologists Ernesto Laclau and Chantal Mouffe; postructuralist feminists Julia Kristeva, Helène Cixous, and Luce Irigaray (see Poststructuralist Feminism entry, this volume); ethnographer Michel de Certeau; philosophers Jean-Luc Nancy and Michel Serres; and sociopolitical historian Jacques Rancière. Other thinkers, including Jean Baudrillard, Jean-François Lyotard, and Gilles Deleuze, were influenced by poststructuralism but are discussed elsewhere in this volume (see Postmodernism entry). In the United States, anthropologists James Clifford and George Marcus, literary critic J. Hillis Miller, communications theorist Norman Denzin, sociologist Patti Lather, and philosophers Richard Rorty and Gayatri Chakravorty Spivak (see Postcolonialism entry, this volume) are worthy of particular note. In the field of organization studies there has been much misinterpretation and confusion of poststructuralism with social constructionism and postmodernism, but the contributions of Gibson Burrell, Robert Chia, Robert Cooper, Heather Höpfl, Campbell Jones, Martin Kilduff, David Knights, Hugo Letiche, Linda Smircich and Marta Calàs, and Hugh Willmott are particularly helpful.

Several themes could be identified within poststructuralism, but not all would be shared. Both Foucault and Derrida, however, argued for a decentering of the subject. They noted that the modern subject, as constituted in psychology, sociology, literature, history, politics, art, and administration, is viewed as coherent and unitary, holistic and bounded. There is a subjective, and personal, core, of which we may be more or less aware. The concept of social agency rests on these assumptions. However, for both Derrida and Foucault, in different ways, the subject is written, or discursively formed, by the actions or traces of already existing systems of authority (the Other) and, rather than being the self-directing origin of discourse, is more of a location where discourses intersect and whose character depends upon the dynamics of this intersection. The familiar selfconscious agent of modern psychology is decentered, such that subjectivity becomes a weaving, a fragmented but intertwined texture, processual and paradoxical rather than hierarchical and integrated.

Reflexivity is another theme given a particular flavor by poststructuralism. No proposition can guarantee its own truth, but if one attempts to move outside the "text" of a proposition to apprehend the factual directly, all that is encountered is another representation of "reality"—another text. Language and a universe divorced from that language may both exist, but the latter cannot be known in an unmediated manner without the former. This draws attention to the ways and means of language, and other systems of representation included by the term, to examine their workings and their constructive effects. Poststructuralism adopts a post-ironic position in that it recognizes its representations as just that but does not claim that it can know any better, and postructuralist writers have experimented with a variety of stylistic devices that draw the reader's attention to the tentative and contingent nature of their texts. The poststructuralist problem could be said to be one of how to write in the full recognition of reflexivity, and it is a problem that is inevitably without solution. Roland Barthes argues that texts can be *lisible* (readerly) or *scriptible* (writerly). Readerly texts tend to have a strong authorial voice; put forward a narrative that does not invite a range of interpretations; and position the reader as passive, an absorber of information. Writerly texts, however, are aware of their contingent and constructed nature and leave themselves open to interpretation, play with ambiguity, and invite the reader to complete or participate in the meaning-making process—to take part in the "writing" of the text. Understandably, relatively few texts of this nature are produced in the social sciences, but they remain a representational option in case study research and are quite common in autoethnography.

A concern with the *materiality* of language, an exposition of the ways by which texts (writing or discourse) achieve their effects, is also common to both deconstruction and discourse analysis, which together effectively form the *linguistic turn*. It is important to note, however, that the understanding of language is extended to other symbolic systems; both Derrida and Foucault wrote extensively on art, and Derrida collaborated with free-form jazz saxophonist and composer Ornette Coleman. Although structures remain important, they are not deterministic, and what escapes them is perhaps even more important in poststructuralism than the detailed analysis of their workings that characterizes much of the work it inspired.

Application

Philosophical approaches in which attention to the minutiae of language are of paramount importance are not obviously relevant to case study methodology, in which a holistic perspective is sought, but they do present a significant resource. There are two methods that can be applied to materials obtained in case research: (1) *deconstruction*, which focuses on a single text, and (2) *genealogy*, which focuses on common threads running through a series of texts over time, as in archive material.

Deconstruction as a practice involves two moments. The first, *overturning*, means looking at what is asserted and what is suppressed by a text (or simply one term in a binary) and reversing the position of the terms. Renarrating the text from the position of the suppressed term is then possible—which is what Joanne Martin did with the story of

a pregnant female manager who scheduled a Caesarean section in order not to miss an important meeting, asking "What would be the equivalent for a man to do?" Once the two terms or worldviews have been asserted with equivalence, the next step is *metaphorization*—creating terms that hold the binary at bay, seeking to contain meaning that neither term can grasp but without ever becoming incorporated into one or the other term. Derrida called these *undecidables*, terms that never reside dualistically, that are neither one thing nor the other, constantly in motion.

In case study research stories are plentiful, but they may be contested or of questionable veracity regardless of their source. Official accounts, corporate reports, speeches, mission statements, policy documents, strategic plans, government white papers, correspondence—anything that may be considered a text—can be and has been deconstructed. One thing deconstruction does is furnish a means to look for missing voices, and there are various versions of this put forward. For David Boje, the first practical step, in line with the two moments, is a duality search, to notice where organizational texts or stories depend on binary oppositions. The next step is to attempt reinterpretation of the story in line with the opposed version. The third step is to look for rebel voices that do not appear in the story and to actively explore the other side. A fourth tactic is to deny the plot—to refuse to accept its unfolding and the criteria implied and seek other resolutions so that one can find the exceptions to the unifying and simplifying trend of the storyline. When one reads between the lines of the story, ironicizing the content may expose hidden significances. These are all good practices for opening up a set of presented facts or a confident narrative to the possibilities raised by its limitations. Although deconstruction has been used to unpick some classic organizational texts, it can also be used to unravel the texts produced by and in organizations—even, with care, in conversations and interviews. If the case study is itself seen as a site of meaning to be opened, where different texts and stories cross in an intertext, rather than a story whose explanation and meaning are to be determined, then deconstruction can be a powerful tool in uncovering the rich possibilities occluded by more positivistic methods.

Archaeology, the method adopted by Foucault in his earlier work, sought to excavate the evidence that different periods thought differently about the world and to submit contemporary assumptions for comparison. Although particularly powerful in The Order of Things, the method did not demonstrate how these understandings came to change from one era to another, and it was relatively static: There was no consideration of the nature of power. Genealogy was the method Foucault used in his later work to remedy this. It involved four principles: (1) reversal, (2) discontinuity, (3) specificity, and (4) exteriority. Reversal involves taking the accepted version of history and looking at it from the opposite direction. For example, madness, criminality, and sickness have been regarded as essential, natural states that need only the appropriate vision and tools to reveal them in their true light. Foucault treats them as fluid, however, and subject to redefinition and contestation in different times and places, which generates his analysis. Discontinuity is the opposite of the traditional accounts of history as progressive, linear, and causal, but Foucault argues that this view is itself created, a discourse imposed on a shifting and fragmented reality. He asks us to look for discontinuities, interruptions, ruptures, breaks, shifts, and mutations, clues to the motility of history that confound the traditional narrative approach. Specificity is a strategy of otherness that abandons the idea that discourse is isomorphic with reality. Each identifiable period has its own discursive mix that departs from reality in a characteristic way. Specifying this discursive mix emphasizes its difference from the present and underscores the disruption of continuity and progressive elaboration of modernity. Exteriority rejects another modernist assumption: that analysis goes deeper than the surface of discourse to reveal hidden meaning. For Foucault, like Derrida, there is no representational surface that can be penetrated; meaning is found in the play of difference but remains on the surface (exterior) rather than accessing the mysteries concealed in the interior—the traditional metaphor for scientific investigation.

Foucault's work on the panoptic gaze has provided inspiration for case research in all areas of social activity where new technology that renders the subject more visible and the scrutinizing system invisible has had an impact, among them

accounting, auditing, personality tests, human resource systems, performance appraisal, academic and professional examinations, evaluation reports, and personal development plans. Studies have investigated surveillance technologies in public spaces, offices, production lines, call centers, and online; technologies that control dispersed workers including virtual organizations, peer surveillance in teams and project groups, self-surveillance, techniques of data collection employed for performance management; and masks of empowerment and delegation that obscure the controlling nature of initiatives.

Critical Summary

There is much ill-informed criticism of poststructuralism. The play of poststructuralism is sometimes complex and obscure, but there is usually a serious intent: to embody the play that it argues is at the heart of language and meaning and, ultimately, philosophy. The writing style is often an attempt to write in the light of reflexivity, postironically, and is experimental rather than obscurantist—a criticism frequently leveled at Derrida. Foucault's selective and idiosyncratic use of archive material is often berated as sloppy scholarship and its insights rejected. Critical realists also accuse poststructuralism of collapsing ontology into epistemology, but Foucault and Derrida have very clear ideas of what they consider to be the relation between knowledge and reality. This involves a subtle critique of traditional philosophical concepts that is precisely targeted.

The focus on language is often held to be a limitation by social critics, who regard it as a retreat from reality, but they tend to neglect the fact that language is just one representational system that poststructuralism addresses and that Foucault includes institutions and practices in his understanding of discourse. Deconstruction and some styles of Foucauldian genealogy are criticized for being microscopic and local; Foucault more generally is accused of gloomy determinism. Deconstruction is accused of neglecting power, and genealogy is accused of equating it with knowledge. Both are accused of absolute relativism and of neglecting practical issues of politics and ethics. Many of these criticisms can be rejected in their crudest formulations by an attentive reading of the original works,

but problems will remain because poststructuralism emphasizes style, process, movement, and supplementarity; it cannot be adequately engaged from a logic of identity and opposition. Postructuralism generates concepts and ideas, making available some techniques but mainly a way of approaching knowledge that causes us to think our existing perspectives differently by working within them, parasitically. Many of the criticisms expect post-structuralism to deliver an alternate totalizing worldview to contest traditional views rather than a way of working on those views to understand them differently, and they will inevitably be frustrated by poststructuralist ways of working on case material.

Stephen Andrew Linstead

See also Autoethnography; Langue and Parôle; Othering; Postcolonialism; Postmodernism; Poststructuralist Feminism; Power/Knowledge

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POSTSTRUCTURALIST FEMINISM

Poststructuralist feminism is a body of theory that pays attention to the issues of knowledge, power,

difference, and discourse and how these intersect and entwine in the lives of women. Poststructuralist feminism may be considered a branch of feminism that is interested in the minutiae of everyday experience, especially in how women affect and are affected by their interrelationships with each other and the world around them.

Conceptual Overview

It is important first to understand the relationship between feminism and poststructuralism, both of which came to prominence in the latter half of the 20th century, although not together. They can each be seen as theoretical constructions and hermeneutical tools that serve as a challenge to modernity, patriarchy, and hierarchy. Employed together, feminism and poststructuralism bring a strong resistance to the sureties of modernity, offering critique and careful examination of takenfor-granted notions of subjectivity and identity for women. They are different, however, in their emphases. Feminism, first and foremost, is invested in the politics of change in order to end the domination and oppression of women, through ongoing critique of taken-for-granted assumptions and continuous attention to sex-based inequalities and separations. There are many forms of feminism, poststructuralist feminism being only one. Liberal feminism, for instance, is interested in individual rights, and radical feminism is vested in underlying issues, such as patriarchy, that limit women's opportunity and possibility.

Within poststructuralist feminist theory women are not one unified, coherent group with a singular identity; they are constantly creating new identities and subjectivities, freeing themselves from labels, cultural expectations, and norms. In recognizing that women are active participants in their own creation as subjects, poststructuralist feminism makes it possible for women to revise how they have been constructed and to grasp that they inhabit multiple and possibly contradictory positions at the same time.

Key concepts in poststructuralism are *discourse* and *power*. Poststructuralism is especially interested in discourse and how it shapes reality and women's identity. Poststructuralism, especially the separate strands developed by Foucault and Derrida, has been especially helpful in analyzing

discourse in specific contexts within education, organizations, and healthcare institutions.

One of poststructuralism's main tenets is that power is fluid and held by everyone. Poststructuralism is less interested in institutional power dynamics and more interested in the everyday way in which power is held and used, as opposed to being owned and exercised by the dominant elite. A distinguishing feature of poststructuralism is that it does not look for causes and effects, or for differences between groups; instead, it focuses on power and knowledge and how they shift with the context and the participants involved. In its allegiance to this conception of fluid power, poststructuralist feminism is most distinct from Marxist and radical strands of feminism, which are deeply committed to changing social class, the economy, and the state, and the ways they serve to dominate. Poststructuralist feminism focuses instead on how women interact with and are shaped or constituted as knowing subjects, by knowledge, discourse, and power within the social sphere and how these women themselves exercise power through micropractices of resistance, technologies of power, and discourse.

Application

Poststructuralism is often seen as elitist and as evading the practicalities of human life, resulting in its underutilization as an interpretive lens. A case study methodology in poststructuralist feminism, although not frequently used, provides an opportunity to look very closely at specific social situations in which women are engaged, in order to see the particularities of the familiar situation. A prime example is Eileen Honan, Michele Knobel, Carolyn Baker, and Bronwyn Davies's use of three different theoretical lenses—discourse, poststructuralist feminism, and ethnography—to shed light on the case of Hannah, a 12-year-old girl in a working-class school. Poststructural feminism is distinct from the other theoretical lenses Honan and colleagues use in that it allows the reader to notice Hannah's contradictory discourses, multiple subject positions, and the different ways that she constitutes herself and is constituted. When she is under the teacher's watchful eye, Hannah cooperates, enjoying the teacher's recognition of her good behavior and the rewards it brings. When other students are disruptive, Hannah enjoys being part of the upset and fun. The case study of Hannah shows the multiple positions that a student can enact without experiencing personal trauma or maladjustment. The richness of using poststructuralist feminism in this case study is to work against *essentialism*, the notion that young girls are all alike, that they all think alike, and that they are consistent in thinking and behavior. The case makes it easier to see women as fluid, and as people in the making, rather than static immutable beings.

Another case study, by Johanna Kantola and Hanne Marlene Dahl, focuses on Denmark. The authors analyze contradictory discourses and effects with regard to the politics of care for the elderly and physically disabled within that country. Kantola and Dahl's purpose is to move away from a notion of state as monolith and to challenge global notions of Nordic countries as benevolent welfare states that always equalize and promote women. In particular, the authors examine everyday practices and discourses rather than centralized state institutions to shift attention from the monolithic entity of the government to the common and accepted practices that shape us. The main contribution of their case study is to show two things: (1) how the state works on us and (2) how gender works on the state. Kantola and Dahl make the point that the interaction between gender and the state is a two-way street and that the state is not the only giver in the process. From their case study we can see how the state invades the private sphere to aid home helpers, bringing attention to their work while at the same time disempowering them. The effects of state assistance, then, are contradictory. In the process of entering into the home life of citizens, the state itself is shaped, taking on a marketplace discourse. Kantola and Dahl's case study analysis shows how new feminist identities and boundaries are being redrawn continuously.

A third case study, conducted by Melanie Mauthner, examines sisters and their relationships. In combining autobiography, case study, and grounded theory, the author moves the focus away from power as comprising a top-down structure from men and patriarchal institutions to a focus on how femininity, gender, and feminism are constructed in the ordinary lives of 37 women and their biological sisters. Mauthner highlights ethical issues in the qualitative case study research, which

was carried out in the United Kingdom. The case highlights qualitative research issues such as whether anonymity is more useful than confidentiality in some instances and whether researcher and participant equality is possible or desirable. Using the highly personal arena of research within family units, the author highlights the ethics of representing very personal data in public venues. When sisters provide varying accounts of relationships and family life, the researcher is challenged to find ways to represent difference, and specifically to show women's process of subjectivity, how they have been created within a specific context and family. This case study allows for close scrutiny of a very complex interpersonal dynamic.

Underscored in all these case study examples is the notion that our reality, our discourse, and language are all under continuous construction. In using a case study the abstract and theoretical frames of feminist poststructuralism are given life and feeling. We know who the women are, and we understand the ordinariness of what is happening in their world, yet the ways in which case study is employed in each instance are radically different. Whereas some scholars, like Honan and colleagues and Kantola and Dahl, use a particular and individual case or unit to study through a poststructuralist lens, Mauthner tends to use her entire group of 37 female participants as a case, in effect increasing the size and breadth of her study. However, in each instance the combination of poststructuralist feminism and case study allows for a careful and nuanced reading of each instance.

Critical Summary

Not all theorists embrace the insights of poststructuralist feminism. Feminists influenced by Marxism react to the fluidity within poststructuralist feminism, suggesting that it undermines the years of progress on naming and resisting the power in patriarchy and works counter to the strengths of a unified feminism that reinforces women's stability and coherence as a group. In response, case studies such as the ones discussed in this entry show that in the minutiae of the everyday knowledge, power, and discourse become more identifiable and are rendered less abstract.

See also Families; Grounded Theory; Interviews; Liberal Feminism; Masculinity and Femininity; Narratives; Poststructuralism; Power; Radical Feminism

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POWER

The notion of power has many possible interpretations and applications. Basically, power denotes a power "over" or a power "to." *Power over* denotes an asymmetrical relationship in which one person or group has some control over another. Power can be economic, social, political, and cultural and can relate to individuals and local as well as societal or global communities. *Power to* indicates that one is able to assert oneself autonomously among others to make one's own choices and act accordingly.

Conceptual Overview and Discussion

This entry addresses issues of power as they may surface in case study research. Because case studies provide the opportunity to delve into the "why"s and "how"s of particular people, organizations, and communities work, issues of power often are evident in the relationships between people and groups. Many thinkers have tried to understand power as a human process, and this entry focuses on the approach taken by sociologist Pierre Bourdieu. As a more recent thinker, Bourdieu addressed the issues brought up by former theorists while also adding his own perspective and expanding greatly the way that researchers understand and conceptualize power in their work.

Bourdieu appreciated Michel Foucault's focus on the individual's relationship to power. Foucault saw power as the recognition of knowledge that allowed an individual to be set apart and recognized for the knowledge he or she possesses. Bourdieu expanded on this notion by adding the concept that groups share power in their assertion of *capital*, a valued accumulation of wealth. Capital can be economic, social, cultural, or symbolic. A hierarchy exists within a field of society in which those who belong to the field value capital and try to accumulate it. Habitus is the individual's awareness of his or her own capital or worth within the field. Fields can be large, as in the field of education, home, or law, or they can be very specific. Nevertheless, each field has persons who have established their wealth of knowledge or other forms of capital, and everyone in the field accepts their dominance. Habitus involves knowledge of self in relation to others. It can involve the body, as in the way that one carries oneself, walks, talks, and dresses. It also leads to a sense of self-worth.

The significance of power in this respect is that power involves a relational division between two or more parties. Bourdieu asserted that it is not necessary for the dominant group or individual to maintain power over the less powerful with physical force. In fact, to maintain this relationship of power it is necessary for the less powerful to accept and assert the status quo as natural and not even question its legitimacy. Bourdieu stated that change is difficult in such relationships of power, yet it can happen in moments of crisis, when the rules of the field are no longer acceptable to its members. This

perspective accepts that fields share capital with other fields, and that capital is constantly being traded, and thus the relationships of power are fluid. Some may have power over others in different ways. For example, one person may have more money than another in the field of culture, or one person may have access to a great deal of cultural capital while not having access to money. However, in many cases capital grows across fields, and one form of capital often leads to another. For example, one who has money often has more access to culture, education, the symbolic capital of symbols of wealth, and so on. The power associated with capital allows those who have it to assert their agendas and gain more capital than others who are not born into capital and have to build capital on their own over the course of their lives. Marxists such as Peter McLaren point to the potential for change in society and the dissolution of power structures, by empowering laborers at the bottom of the economy pyramid to assert their ability to withdraw their service. In a capitalist society the economy relies on the working class to provide labor to the system. However, as Bourdieu asserted, the unwillingness or lack of awareness of the working class to assert their potential power within a capitalist system results in maintenance of the status quo.

Several key words are associated with the notion of power in research and theory. Symbolic power refers to the power that dominant members of fields have over others. This type of power does not have to be physical, although it can involve physical violence. However, to have true power over another the dominated party has to accept the current state of affairs as normal. Power often indicates a class structure and has been described in relation to gender, race, age, ability, and many other organizations of society that have developed throughout history and become entrenched in its values, beliefs, and accepted practices. Language is another aspect of culture, as is education, in which power is passed on from generation to generation due to the belief in the hierarchy of one language or form of education over another. Indeed, the field of education is endowed with the responsibility of teaching younger members the rules of the society in which they find themselves. Education also empowers the student with knowledge capital, which then translates into worth in one's

work, home, and social life. Because language is the way we communicate with each other it is also imbued with a great deal of potential power. Discourses between members of fields involve communication of identity from one to another. Through communication, members can also profess or resist their positions within the field. Power indicates the freedom to assert one's habitus in public, whereas lack of power indicates a lack of freedom, or restriction. Limitations therefore keep people in lesser levels of society in those levels by restraining the options or choices that they have. Although one would think that there is opportunity for anyone to rise within one's field, this is very difficult to do when everyone in the field, including oneself, is unaware of the possibility to

Institutions within society, including education systems, are in place mainly to reinforce the beliefs and values of that particular field. Students are in debt to their teachers, who recognize their power to pass on and indoctrinate them with the mores of their field. The hierarchy within schools, therefore, often mirrors that of society. Although there is the potential for schools to change and reinvent the communities they inhabit, it is very difficult for their structures to change, given the hierarchies found within. Even universities, which are considered to be the source of original thought and intellectual freedom, are fraught with restrictions to members due to the structures of hierarchy that stand in the way of change. New knowledge challenges and threatens the knowledge that is currently acceptable to the field; therefore, to be accepted, new knowledge must be assimilated gradually into the known world of the field. Also, new knowledge from new members of the field is often rejected; such knowledge often has to come from respected veterans of the field to be deemed acceptable. Experts define their fields and become their sole proprietors, establishing a power relationship that provides them with tacit knowledge while discounting the knowledge that may be in nonmembers of the field. This respect for specialization has come to allocate knowledge and, therefore, power, to particular fields and their members, giving them power to reign over the legitimacy and maintenance of that field, while others who do not belong to the field are not recognized for their knowledge, even if their knowledge is just as valuable and potentially helpful. The fields of knowledge invested in the professions are examples of this. Professions protect knowledge and power by closing the gates to anyone who does not adhere to the field's rules of qualification and training. Professions separate out fields of knowledge so that no one outside the profession is recognized as having power to make decisions or act within the boundaries of that profession. The difference between *actual truth* and the *truth that groups define* is the thrust of power for all of humankind. Truth for humans can only be what they accept as part of their belief or knowledge system. This has implications for the education of young people and the sharing of information among all members of society.

Researchers such as Toril Moi have used theories such as Bourdieu's to address societal attitudes toward such traditionally underrated groups as women, ethnic/racial minorities, alternate sexualities, people of color, alternative religions, the poor, and so on. These groups have been typically less powerful than white men because white men have been endowed with capital. They have defined their territories as being more valuable, and they have fought for the right to be considered superior. Over many generations, they have held "lesser" groups in check by reinforcing their values through the philosophies that they have enforced with symbolic and physical violence. Sadly, as Bourdieu asserted, the less powerful actually serve to maintain their place in society by believing that they are lesser. They believe that the power relationship between themselves and others is natural and cannot—should not—be changed, or else chaos and lack of social structure will prevail.

Application

Many case studies have addressed the issue of power. Although they may not have known or specified it as an issue going in to the research, it became an important part of the analysis of the case. Many case studies have investigated the experiences of people in positions of disadvantage in society. Christopher Dunbar studied the experiences of black male students in school and found that they received a different curriculum than their white peers. There were fewer options for them, and they had to struggle and prove themselves to gain the right to graduate. This exclusion from the

mainstream of education indicates the amount of power that the white have over people of color. To analyze the school system without the black students' perspective would omit a very important aspect of the system that is not publicized or, if it is publicized, points to these students as the source of their own problems within the school system (i.e., they are unmotivated, or violent, or less able, than other students). Likewise, researchers have explored the experiences of teachers and students in second language and/or learning challenged classes in schools. The decisions to separate and exclude students on the basis of their learning ability, as in Melanie Nind and Steve Cochrane's study, or their language, such as Spanish in Patrick Manyak's study, indicates the hegemony that gives power to the white, middle-class population and maintains this hegemony through the power that the white middle class has in schools. The use of curriculum or language to justify separation and degradation of groups considered lesser than the dominant group reproduces the values inherent in the hegemonic society in schools. This serves to maintain those values for the next generation and inhibits children from developing capital early in their lives. Kim Reid and Linda Button presented a very moving case study of a single student and her habitus as a result of being segregated as a learning disabled student in a school. Over the years, her sense of her ability diminished, to the point where she had very little belief in her own ability by the time she reached her teen years. The isolation, devaluing, and oppression felt by students such as Anna point to the effect of viewing them according to a deficit model of special education, in which their intellect and ability are downplayed and the power of the school and teachers to drive home that message takes the form of overt and subtle communication. The result is a self-fulfilling prophecv as many of these students continue to fail to succeed in school and after school.

However, students are not the only groups feeling the effects of power on them. Teachers and teacher assistants also are often at the bottom of the power pyramid in schools. Teacher assistants in particular are often given responsibility for the neediest children in schools, while getting the lowest pay. Teachers who work with students with special needs and other challenging groups are also often the least powerful in the school. New teachers

often get the worst workloads, because they have the least seniority in schools. Principals and other leaders can exert their power in more and less positive ways. Some leadership styles have been found to emphasize the distance between the top and bottom of the power pyramid. Other leaders have been far more conciliatory and sensitive to the perspectives of teachers and other staff with whom they work. Models of leadership that are more participatory have been explored by researchers such as Susan Jones. The opportunity to work together as teachers and lead each other is a different style of leadership born through experience and sharing of power. Power in schools also comes from outside the school, through policies, mandates, and political changes. Curriculum that develops from the teachers and students rather than from standardized and state-mandated achievement goals can give power to the learners rather than those without educational experience. Researchers such as Patricia Sikes have explored the responses of experienced teachers to demands from state and local authorities for a more standardized curriculum and testing. In this case, the power is officially held by players outside the school, who are wielding the power of political will and economic means. Nevertheless, there is still a great deal of power in the teacher's independent means to teach what he or she feels is important. The power between teacher and student is immense and has the potential to be productive and positive or negative and destructive. Likewise, interactions between teachers within the school can create pockets of power, or shared power, thereby having effects on students and learning.

In addition, parents can have more and less power in the schools their children attend, depending on the capital they bring to the school, their involvement with it, and their own cultural background and identification with the staff as members of the same social networks. Indeed, parents often represent the outside society in that schools are often closed to the public, given the power to pass on valued curriculum to students in the hopes that they will be productive members of society and carry on society's wishes. The involvement of parents is sometimes low because of their exclusion by the school. At the same time, parents do have the power of choice in some cases, to determine where their children will attend school, thereby determining what they will learn, in terms

of curriculum, social mores, and networks. Carl Bagley and Philip and Glenys Woods studied the implementation of school choice policy in England and found that parents of children with special educational needs were required to make choices for their children but often made these choices on the basis of an understanding that was quite different from the criteria that schools would predict. Parents read the messages from school principals, be they positive or negative, and consider their own ability to provide support to their children in the various options available. Such factors as location and school support would not be necessarily important for parents who have the access to transportation or who understand the difference between the realities and promises that schools project in an effort to control the recruitment of more and less capable students. The power that parents with means do have to access schools and thereby make schools more competitive has the potential to make schools more responsive and less powerful in light of the necessity to share power with parents. Yet parents who do not have cultural, social, or educational capital themselves, or who do not share the same language in the literal and symbolic sense as educators, are often excluded and do not feel welcome to be members of the school, thereby hindering them from gaining that capital for themselves and their students.

Many studies have explored single cases to find out how and why decisions are made there. As in all human groups, there is the negotiation of power, and case studies offer the opportunity to see how power is shared, traded, and held onto by various players within the setting and outside the setting. In terms of inclusive education, for example, many researchers have looked to single case studies to see how inclusive education policies play out in real school settings. Judy Kugelmass found that collaboration and compromise were two facets of interaction between staff members that were necessary for inclusion to work in that school. Over a period of 4 years, her ethnographic study found that there needed to be a balance between teachers' autonomy (a facet of freedom that has its own power) and collaboration in order for inclusion to work in this setting, which had cultural, linguistic, and racial diversity. There was a central belief system that supported inclusion. This would need to be facilitated by the principal as leader. In other settings and case studies, where principals did not espouse inclusion or support teachers in their efforts to practice inclusion of students, inclusion did not happen.

In terms of gaining power "to" rather than being powered over, students have been perhaps the least addressed participants in schools. Michael Fielding asked students and teachers to address this concern in his case study and found that students have much to contribute to their own educational goals, given the power to do so. Ross Brooker and Doune MacDonald also asked students to voice their concerns in a secondary physical education class in Australia. They used poststructuralist and feminist analysis to interpret the students' experiences in curricular innovation and proposed ways in which students can be part of curriculum reform and research.

Power Issues for Researchers Doing Case Study Research

Just as there are issues within the cases under study, so too are there power issues for the researchers and those they research. The power that researchers have is often predicted and considered before the study begins as they address the ethical issues in what they propose and gain permission to enter the sites they study. In the case of researchers who enter sites to conduct interviews and/or observations or document analysis there is the potential power to uncover private information that could influence the subject's life adversely should it come to public light. Therefore, the researcher needs to think about how his or her involvement in the case could change the outcome of the study. How could the researcher, by being there, influence the outcome of what is taking place in a positive or negative way? The confidentiality and anonymity of the data gathered are two areas that are usually required in a case study to ensure that the words shared are not traceable back to their speakers; however, an intrinsic case study's results may be quite identifiable to its participants. Because the results are often shared with participants afterward as part of the ethical requirement of the study, it may be very evident to participants who said and did what. In interpreting data and sharing results researchers need to be very aware of and sensitive about approaching issues in a way

that allows for constructive progress. In some cases, such as Susan Peters, C. Johnstone, and P. Ferguson's study and Stacy K. Dymond's study, a participatory action research model, in which participants are empowered to produce and share their own words and actions in a way that is transparent, is used. This method provides the means to create a more democratic power sharing in the site due to the ownership of the study by the participants with the facilitation of researchers. In the case of researchers who are part of the site they are studying there are also issues of power. Sometimes making oneself the subject of study places oneself in a position of vulnerability, in terms of exposing one's own thoughts. Sometimes there is additional power in adding the researcher role to one's role as teacher or parent, as Merridy Malin found. She learned that there were ethical issues in the competing interests of teacher, researcher, and student, and she found a way to work through this by employing participatory action research as well, which allowed the class under study to produce a work together that reflected their contributions to the research as a group.

Critical Summary

The issue of power is very evident in much case study research, because power is consciously or unconsciously present in almost every, if not every, action, decision, word, and thought that humans have. Power can be housed in individuals, groups, society, and the institutions that society creates to do its work. Power can be relational, as in the power between two individuals. It can be fluid, or it can be static and long lasting. Power can be shared, and it can be passed on. One can feel empowered or feel oppressed by another's power. Power over individuals is often upheld through unspoken means, because the option to change the situation is often guarded by very influential social mores within one's field of action. This can affect one's capital and one's habitus. Political power can be upheld by groups who support a leader or a concept. Politics can change the agents of power, but power is never actually lost; it is simply transferred. Case studies offer the opportunity to analyze power in its most concrete and symbolic enactments. Interviews, observations, and document analyses, for example, can provide insights into

how people think, how they relate to each other, and how these thoughts can change or uphold the ways things are done in particular and more common settings. There is the potential for conflict between the role of researcher and that of participants when any research takes place. For this reason, researchers need to be very aware of the potential and real effects of their behaviors and beliefs while doing their research. Searching for the truth can be relative as we understand how power influences how the "truth" is defined. Certain types of research, such as educational research, can empower traditionally powerless individuals through giving voice to their perspectives and making them known. However, there is power as well in including participants in the research process not only as subjects but also as research agents themselves. By opening the research process to the participants to decide, speak, write, and communicate their thoughts there is much more potential for future and ongoing access to power by making decisions and acting in their own and their students' best interest. Although Bourdieu and others have described society in a way that must always have power vested in activity, and structure, there is the potential to change the power structures by being aware of one's own power to choose, and to resist, by collectively sharing power and using it to benefit many rather than one.

Carla DiGiorgio

See also Case Study Research in Education; Colonialism; Docile Bodies; Power/Knowledge; Single-Case Designs

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POWER/KNOWLEDGE

The power/knowledge paradigm is an analytical concept for studying social relations produced

within societal contexts. It refers to how power and knowledge implicate one another and how they influence social dynamics between groups and within social structures.

Conceptual Overview and Discussion

The relationship between power and knowledge is intrinsically reciprocal. Power has a role in the production of knowledge and, conversely, knowledge presumes and constitutes power relations. Regimes of power/knowledge can be linked to relations of domination and resistance to domination. Domination is embedded in numerous dynamics, including the processes of production, validation, interrogation, and the use of different knowledge systems. Knowledge is acquiring the ability to have a statement accepted as "true" and it therefore produces and reinforces "truth," which lends power to those who produce it. The relationship between power and knowledge functions to differentially value, negate, or position certain types of knowledge and to define what constitutes "valid" or "invalid" knowledge. The knowledge produced by dominant subjects who are highly located in the hierarchies of power becomes privileged, while the knowledge produced by marginalized groups remains subjugated. Domination is also organized through discriminatory practices such as racism, sexism, or language discrimination. By virtue of skin color, gender, accent, or immigration status, some subjects face oppression or can be denied access to sites of knowledge production, such as educational or employment institutions.

Even though knowledge has the potential to legitimize oppressive power, knowledge can also be used to undermine and oppose this form of power. Power is continually at risk of being resisted and contested by counterhegemonic discourses and practices. Resistance against oppressive power can be mounted to counter the dominant ideological systems and the truth that is regarded as natural and unavoidable. The institutional and systemic nature of power can be efficiently countered and transformed through organized and collective group action. These forms of action are embedded in the struggle for social justice and can further be developed into institutional and systemic strategies.

The conceptualization of the relationship between power and knowledge draws attention to the power relations embedded in social and institutional dynamics and emphasizes the role of agency in resistance to power.

Application

Amal Madibbo explored the connectedness between power and knowledge in the study of domination and resistance to domination relevant to the experiences of Black Francophone immigrants in Canada. The author examined the situation of African and Haitian Black French-speaking immigrants, who constitute a racial minority situated within a linguistic minority, in the distribution of and access to the economic and political resources that the Canadian state avails to Francophones as one of its official linguistic communities in a minority situation. Madibbo also sought to identify various strategies and sites of resistance these immigrants invent to gain access to power structures. The data were collected and analyzed using diverse qualitative methods, including interviews, participant observation, and document analysis. This methodological approach was based on the principles of critical ethnography, which aims to analyze power centers as well as the processes that lead to producing different tools of resistance. Because Black Francophones do not have access to prevailing sites of knowledge production, such as public discourse and the media, their discourse was made the center of analysis in order to further implicate these subjects in the act of knowledge production and in the process of social change. Madibbo demonstrated that Black Francophones are caught up in multiple systems of oppression namely, racism and gender and language discrimination—by which the state and its institutions exert and maintain their hegemonic power. The marginalization of the research subjects occurs through processes such as the absence of Black teachers in schools, underrepresentation of Black history and culture in the school curriculum, lack of appropriate services in French language, and underfunding of relevant academic programs. All of these processes hinder the development opportunities of the Black Francophone community.

Even though these practices can disempower the research participants, these subjects are politically conscious and are engaged in multiple forms of activism in their struggle against racism, patriarchy, and language discrimination. Antioppression knowledge is constructed and coalitions and alliance are built on the basis of shared goals of equity and social and institutional transformation. The study of Black Francophone immigrants' encounters with dominance and resistance contributes to the reconceptualization of the intersection between power and knowledge. It allows for the rethinking of institutionalized power and privilege as well as the rationale for the exclusion and inclusion in social relations. At the level of praxis, the systems of knowledge produced in the process of resistance deserve to be used in future policymaking and development projects and in educational contexts dominated by conventional frameworks of knowledge.

Critical Summary

The analysis of the connection between power and knowledge has been applied to topics such as the study of dominant and subjugated knowledge, multiple systems of oppression, and empowerment of racialized and other marginalized groups. It allows for the questioning of issues such as the colonial intervention in the history of subaltern groups and processes of inclusion and exclusion, and it stresses the achievement of empowerment and social justice by agency and collective resistance. The power/ knowledge paradigm can also be useful for longitudinal case studies that aim to investigate topics such as the education of minorities, patterns of forced and unforced migration, colonialism and postcolonialism, and the production and dissemination of alternative forms of knowledge. Such studies will help reconceptualize the possibilities and limitations of knowledge as well as the oppressive and productive sides of power.

Amal Madibbo

See also Agency; Alienation; Colonialism; Knowledge Production; Power; Subjectivism

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PRACADEMICS

In its simplest form, the term *pracademics* is a melding of the words *practical* and *academic*. *Pracademics* is a case study analysis and reporting process in which identification and resolution of practical actions are matched with "correct" academic theory, and academic theory is illustrated with relevant practical actions—at the same time.

One purpose of pracademics is to inform praxis, where *praxis* is defined as the mutual causation of real world action with critical reflection. Each context of a case study is the "real world"; consequently, the researcher working in and with that context cannot be separated from conscious and unconscious knowledge of both practical activities and academic theory. Without pracademics working in and of itself the researcher cannot be fully engaged in praxis that is needed to ensure trustworthiness of naturalistic research including case studies.

Another purpose of pracademics is to organize and describe qualitative data according to the academic theory (or theories) that best fit the practical situation at hand. This is a *deductive* process. From an *inductive* perspective, pracademics also facilitates the generation of new or different academic theory from the analysis and interpretation of both secondary and primary data of the case study methodology.

Conceptual Overview and Discussion

Pracademics help increase our understanding of intrinsic, instrumental, and collective case studies. On the one hand, Bruce Berg argued that intrinsic case studies are not used to gain understanding of, or to develop, theory; they are used to increase

understanding of a specific case. It is instrumental case studies that are used to shed light on theoretical postulates. *Collective case studies* are studies of multiple instrumental case studies. The use of pracademics transcends intrinsic case study analysis into instrumental analysis when practical activities are analyzed against academic theory, and vice versa. Concomitantly, pracademics inherently establishes the combination case study of intrinsic—instrumental because the researcher cannot be separated from the praxis of her or his world before and during the case study.

Regardless of the researcher's purpose, in case study research secondary data collected from literature reviews and primary data collected from interviews and observations all facilitate findings that are evaluated against naturalistic research tenets of truth value, applicability, and neutrality.

Pracademics serves to augment thick descriptions of individual activities and organizational operations so that identification of relevant and correct academic theory actually in evidence could be more easily, and more accurately, deduced from the case study data. In this context, it is the truth value that is augmented by pracademics because it helps validate interpretations of and findings from all source data. For instance, member checking would have research participants evaluate the accuracy of the researcher's data reporting, including but not limited to case study content. Pracademics generates truth value by checking both primary (i.e., if the theorist is interviewed for the study) and secondary data (i.e., theories) against primary data (i.e., practice) originally collected from respondents. The questions pracademics asks are "are participants practicing what the theory indicates, and does the theory state what participants are practicing?"

At the same time, pracademics supports the applicability or degree of fit between findings from more than one context or with other respondents. By spanning gaps between practical activities and theoretical postulates, pracademics supports the derivation of a thicker description that occurs after analysis. The thicker the description of a case, the higher is transferability of its findings to the findings of other case studies. Pracademics gives theoretical relevance and historical structure to specific practical situations, and it gives life to the

academic theory that accurately supports practical activities in that world.

Researcher neutrality insists that an inquiry's findings are not blurred by researcher bias or motivation. Because researchers cannot separate themselves from both conscious and unconscious knowledge of the worlds they study, they understand how their own predispositions can affect data collection, analysis, and reporting. Because pracademics informs praxis before and during the study, it is more likely that the researcher will continually confirm that findings have evolved from respondents and the inquiry's conditions.

In short, pracademics firmly acknowledges that, as far as the social sciences are concerned, researchers cannot detach themselves from the world they study. "Social facts" take their specific form from the interpretive framework of the viewer. Through such an acknowledgment, a pracademics approach encourages researchers to declare and be reflexive about the theories that have guided them to make the conclusions they have about what they have observed and engage in or formulate action.

Application

In the context of case study analysis and reporting, pracademics were used in case study research work by Cheryl Lapp at the University of Alberta in the early 1990s and, more formally, in her MEd thesis, "Learning Opportunities in the Workplace." As a published process in action, pracademics was utilized in the volume Leadership Is a Matter of Life and Death: The Psychodynamics of Eros and Thanatos Working in Organisations (Carr & Lapp, 2006). In this book, pracademics was used to triangulate theoretical findings we wished to corroborate with practical activities we found in collective instrumental vignettes and a case study from successfully defended PhD research. These cases were reread to investigate for more extensive theoretical implications in the fields of psychodynamics and organizational studies. The purposes of the case studies were to establish a practice ground for theoretical application. From these theoretical applications we were then able to generate conclusions about how practical activities could be improved or eliminated so to increase organizational wellness. By using this approach, findings were generated that led to increased and improved praxis on how leadership is affected by both life and death instincts, Eros and Thanatos.

Cheryl A. Lapp and Adrian N. Carr

See also Extension of Theory; Generalizability; Objectivity; Praxis

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PRACTICE-ORIENTED RESEARCH

Practice-oriented research, or what some term practice-based research, involves inquiry into the methods, systems, programs, and policies of professional practice. In a case study context this means an investigation of a particular example, or case, related to some aspect of practice. The goal of practice-oriented research is to utilize research knowledge to enhance the development and implementation of practice and policy.

Conceptual Overview and Discussion

The primary goal of case study research is to generate knowledge of the particular rather than the general. This is consistent with the day-to-day realities of practitioners in a wide variety of fields who work in particular ways with particular individuals, groups of individuals, projects, or programs. Their major interest is being able to meet the needs of the clientele they serve. Practice-oriented case study information can be

readily applied or adapted to fit their particular settings.

Practice-oriented case studies are popular in fields such as anthropology, medicine, psychology, political science, sociology, management, coaching, education, public administration, and human services. Indeed, the advent of case study research has been attributed to medical practitioners who wished to understand particular individuals ("cases") more thoroughly. Action research models and methods have been aligned with practice in social work and human service since the 1940s but have typically been marginalized or ignored in academic research methodology texts. Recently, there have been calls for more practice-based or evidence-based research, in part because of concern that the results derived from academic research have had little impact on policy or practice. This has been characterized as a problem of knowledge transfer or knowledge uptake—translating traditional research results into activities that can be recognized and adopted by practitioners.

Nick Fox outlines three propositions for practice-oriented research: (1) the pursuit of knowledge is a local and contingent process (i.e., generalization is limited), (2) research should be constitutive of difference rather than similarity, and (3) theory-building should be accompanied by practical applications. He also contends that research and theory must be committed to a political and ethical engagement with practice, what some scholars term praxis. Research cannot be understood without being situated in an "out there" reality. Postmodern and poststructuralist theories have challenged the detached-observer role in research, thus opening doors for practitioner studies that involve real-life problems and relationships.

There is some debate over whether practice-oriented case studies can contribute to theoretical understanding. Although some positivist researchers claim that only studies with sample sizes large enough to be generalized to a population can test theory, there is general agreement that a single case can generate, or sometimes disprove, a theory. Michael Bassey argues that educational case studies can be (re)constructed to focus on theory-seeking and theory-testing through the process of *fuzzy generalization* (a more qualitative understanding) in contrast to statistical generalization.

Ethical questions arise constantly in practice, although there is very little written on the topic of practice-oriented research in existing professional codes of ethics. Institutional ethics review boards continue to wrestle with practitioner research proposals: issues of confidentiality, anonymity, and "power over" predominate. Through discussion with researchers, practitioners, participants, and others, innovative and flexible solutions are being developed that make excellent topics for practice-oriented case study reports.

Application

As with case study generally, practice-oriented research can be quantitative or qualitative and can adopt one or a variety of methods. This design flexibility is particularly well suited to the diversity that may exist in practice in any given field. Practice-oriented research can follow the traditional academic model of formalized investigations presented at scholarly meetings or in peer-reviewed journals. It can also be more informal, involving systematic observation and documentation of practice that is shared more locally with colleagues, supervisees, or students. Practice-oriented case studies provide rich or "thick" descriptions that include details of the contextualized situation of the case under study, thus facilitating transfer to or comparison with one's own practice.

Practitioners may or may not be involved in systematic research themselves; however, they are more likely to read and reflect on a research paper if they believe it will have some application to their daily practice. Many academic and professional journals have "Brief Report" or "Field Study" sections for which practitioners are encouraged to submit shorter descriptive articles, including practice-oriented case studies. Electronic resources and networks have made it possible to easily access a vast array of local, national, and international practice-oriented case study examples.

Case studies in anthropology and sociology have typically been important in training students and researchers in field work methods. In clinical and counseling psychology, practitioners can participate in continuing education through reading or writing about innovative treatment approaches, the application of an established technique to a new client group, or supervisory methods.

Margaret Potter and her colleagues identify eight characteristics of practice-based research in public health contexts: it is (1) scholarly, (2) rigorous, (3) practical, (4) ecological, (5) methodologically diverse, (6) collaborative, (7) equitable, and (8) translational. They maintain that the growth of practicebased research depends on multidisciplinary and transdisciplinary approaches to improve healthrelated policy and practice.

Case studies focused on practice are frequently used in law and management. Practitioners and students learn from practice-oriented accounts of challenging clients, a comparison of approaches to a problem scenario, descriptions of administrative procedures, or real-life experiences of different types of companies. Descriptions of government policy applications also are popular.

Critical Summary

Practice-oriented case study research has a long tradition of enhancing the knowledge and skills of practitioners and policymakers. The growing emphasis on evidence-based practice indicates that instances of this type of research will increase in the future.

E. Anne Marshall

See also Community of Practice; Critical Incident Case Study; Outcome-Driven Research; Pracademics; Praxis

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PRAGMATISM

Pragmatism is an American philosophy, dating from the 19th century, based on the principle that truth is provisional rather than absolute and fixed. Nineteenth-century mathematician and logician Charles Sanders Peirce is recognized as the founder of pragmatism. His *pragmatic axiom* construes all conceptions in the light of their practical consequences. Pragmatism's precursors include Immanuel Kant, who argued that humans might access practical, if not theoretical, reason; David Hume, whose skeptical outlook is credited as a contribution to the scientific method; and Jeremy Bentham, whose utilitarianism judged an action by its consequences. Peirce's pragmatism has been developed and modified by William James, John Dewey, and, most recently, by Richard Rorty.

Conceptual Overview and Discussion

In Peirce's original formulation pragmatism constitutes the application of the experimental method in the pursuit of knowledge, with hypotheses provisionally verified in practice. This he equated with the formal scientific method. The result of pragmatic inquiry is the best understanding at a given time emerging from within a community of scientists. Peirce insisted that the search for the best evidence must not immobilize the researcher, who may make reasonable inferences from limited evidence, which are always subject to further inquiry. Peirce argued for *abduction*, a parsimonious search for the best and simplest explanation for a phenomenon through survey of the likely causes, with errors corrected by additional iterations. Peirce submitted that humans were well equipped to derive useful understanding from the limited information inferences of abduction.

James shifted the standard for the determination of provisional truth to subjective and personal value. For James, the crux of provisional truth is what "works" for the individual, the "cash value" of an idea (although this formulation fueled misunderstanding of pragmatism as crassly materialistic). James embraced the *will to believe* as sufficient to justify the acceptance of religious faith despite the absence of proof, given prospective gains in the quality of life. At the same time, James was a physician who appreciated advances in medical research. In each case, James perceived concrete benefits for individuals. Clearly he valued evidence of varied kinds as guides to decision making and

would endorse an eclectic model of research and inquiry.

Dewey reframed pragmatism as the judgment of social (rather than personal) consequences and reconceived science as the core of all human learning, whether of the child or the scientist. He regarded the experimental method, or learning by doing, to be the means by which both children and adults learned everything, from how to walk to arcane science. Dewey's conception of science was democratic, cumulative, collective, and not necessarily linear. He argued for the application of social intelligence, a process of cooperative inquiry incorporating discussion and debate, informed by the observation of cause and effect, means and ends. Rather than exalt the practices of the professional scientist, Dewey noted the potential of the average individual to apply and extend intelligence given necessary resources.

Application

The significance of pragmatism for research methodology is that the pragmatist recognizes that all research is cumulative and yet incomplete and that preliminary judgments must be made with the evidence at hand. A pragmatist methodology embraces trial and error and "brute force" methods, as in mathematics.

From the perspective of pragmatism, case studies provide valuable practical details and contribute to the development of social intelligence just as the craftsperson and engineer add to the sum total of discovery and invention. Practical experience illuminates the value of hypotheses, as do formal experiments. The case study is central to pragmatism as a means to evaluate the consequences of personal and social choices. Case studies provide contexts in which to identify details of institutional development, distinctive features, commonalities across cases, and so on, all through the careful examination of existing reality.

Pragmatism and case study converge in the institutionalist tradition in public policymaking. The institutionalist economists John R. Commons, Rexford Guy Tugwell, and John Kenneth Galbraith, among others, rejected abstract economic theory in favor of the examination of social conditions. They considered detailed evidence of poor working conditions and persistent unemployment and made the

case for an activist government to remedy these social ills. Commons and Tugwell played a central role in developing policy for the Progressive and New Deal eras in the United States. More recently, pragmatic perspectives on the environment and public health have vied with orthodox economic dogma in the development of regulatory policy. With the election of President Barack Obama it is likely that regulatory agencies will return to case-based inquiry as to social conditions rather than invocations of free market doctrine.

Critical Summary

Pragmatism embodies potential contradictions. Peirce, James, and Dewey shared confidence in the human capacity for learning, discovery, and invention. On the other hand, they urged skepticism with regard to any specific claim. Richard Rorty and other postmodernists appear to stress skepticism and subjectivism.

Dewey in particular was optimistic about the potential expansion of social intelligence. His optimism applied at least as much to the ordinary thinker as to the theory-bound professional scientist. He embraced both improvisation and rigor in scientific exploration, and rigor in his view demanded further improvisation.

Critics of pragmatism deny its scientific merit and insist on the perils of subjectivism. They regard pragmatic inquiry as arbitrary and dismissive of established truths. Critics on the right have denounced pragmatist-inspired public policy as inconsistent with fundamental economic and social laws.

David Carroll Jacobs

See also Abduction; Hypothesis; Postmodernism

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Praxis

The word *praxis* dates back to the ancient Greeks and Aristotle, who defined it in terms of practical knowledge and action. In more recent times, praxis has roots in neo-Marxist traditions and critical theory. The work of Paulo Freire, in particular, contributes to an understanding of praxis as the authentic union of *action* and *reflection*—a union that he believes is absolutely necessary in order to bring about a critical consciousness. In an effort to delineate the relationship between praxis and social science research paradigms, Patti Lather uses the terms *research as praxis* and *praxis oriented* to describe research that is openly critical, political, ideological, and committed to building a more just society.

Conceptual Overview and Discussion

As one will readily acknowledge, the choice of any research methodology is both epistemological (how one views knowledge and knowing) and ontological (how one views the world). In general, case study research can emerge from (or be implemented within) positivist, interpretivist, or critical research frameworks. When taken together with the word *praxis*, however, the case study is likely to emerge from, and be informed by, a theoretical framework based in critical theory. Positivistic and interpretivist research tend to be more descriptive and seldom strive to challenge or change status quo practices. On the other hand, because a main focus of critical theory is on power, research informed by this framework tends to study the effects of power in the form of marginalization, regulation, and reproduction in the world. If one views the world as consisting of socially unjust structures and orientations, then research will be geared toward social action and change.

The concept of praxis can merge quite seamlessly with case study research, because case study method has political roots. According to Carol Mullen, case study praxis necessarily goes beyond data collection and interpretation and into the realm of activism for change. As a defining feature, she describes case studies as fusing theory with practice to embody a "knowledge-in-action"—a way of bridging theory and practice, testing theoretical knowledge, and

viewing issues from different perspectives. One can readily see then that case study research functions reflectively, proactively, and dialectically with the various contextual and constraining factors of the case study unit being studied.

Because social science research seeks, in general, to produce new theory as well as test existing theories through practitioner research, case study research characterized by praxis has the potential to take the relationship between theory and practice to a whole new critical and action-oriented level. The concept of praxis acknowledges that the ground between theory and practice, between thought and action, between how we think about what we want to achieve (the ends) and how we might achieve that (the means) is always, and only, on shifting ground. Praxis seeks to create not a contentious dichotomy between theory and practice but instead a dialogic, dialectic relationship that highlights a continual interplay between them.

Application

In terms of the application of praxis-oriented case study research one must ask the question of what key ingredients are necessary in order to be true to the philosophy of praxis. According to Patti Lather, one important focus is on the consideration and inclusion of *reciprocity* in research. A praxis-oriented case study must build in reciprocity, reflexivity, and interactivity throughout the research process. Although it is a property of traditional research to incorporate member-checking processes of interview transcript data, this is not enough for praxis-oriented research: Research participants must also be involved in the negotiation of meaning in the data, in the reflection on its significance in their lives, and in the dialogic construction of theory to reflect the practical. Patti Lather warns researchers that the central dangers of praxis-oriented research are researcher imposition and reification; however, when the processes of reciprocal reflexivity and critique are built into praxis-oriented research these dangers can be reduced. In addition to reciprocity, Lather also presents the interwoven issues of dialectical theory-building and validity that she believes emancipatory researchers should consider in their research design.

At this point, it is important to clarify distinctions between action research and praxis-oriented research. As has been noted, praxis-oriented research must move beyond reflecting on personal and professional practice (a characteristic of action research) and into the realm of consciously using research to challenge and change societal injustices. Consistent with this description of praxisoriented research, one interwoven application of praxis with action research is known as praxis *intervention*, which is a kind of participatory action research in which the participants are often referred to as members because of their active involvement in organizing, interpreting, and bringing about change through the research process. This form of praxis-oriented research seeks to create a sort of dissonance in the mind-sets of its members, prompting them to intervene in the world and struggle against structural inequalities and discriminations.

In another application of praxis-oriented research, Tony Kruger discusses an ideological framework called *praxis inquiry*, whose protocol has four dimensions: (1) practice described, (2) practice explained, (3) practice theorized, and (4) practice changed. Related specifically to teacher education, *praxis inquiry* seeks to explore the life and learning of students through a critical study of, and engagement in, the interplay among pedagogical, sociocultural, and systemic contexts, all of which have significant impact on learning environments.

The Praxis of Praxis Applications

It is with a sense of irony that one notes how, so far, this entry has been a theoretical piece on *praxis*—a word that implies theory-driven practice and action. In an effort to understand what praxisoriented case study research might mean to new research practitioners, a few questions were posed to graduate students in education:

What does praxis mean to you?

Essentially, praxis is my educational mantra. It reminds me to authentically explore the vast theoretical possibilities of learning instead of simply chasing the latest educational trends or clinging to what has always worked for me or for the department. It also reminds me that theory

and practice do not have to follow one another in a systematic and dialectical cycle but instead can exist—indeed, thrive—if I allow each to operate concurrently within the other.

—Doug

What do you think it means to describe praxisoriented research as that which has a reflexive and dialectic relationship between theory and practice?

It makes me think about a deconstruction of the theory–practice binary. I am starting to see praxis as an "in-between space." What you think about what you do (theory) and what you physically do (practice) do not need to be seen as two separate things. I feel like I am trained to see them as separate, but our discussion about praxis is helping me to see how they might be two sides of the same coin.

—Tara

What would you say is one defining feature that distinguishes praxis-oriented case study research from "traditional" case study research?

Traditional case-study research is the study of particular/unique cases, perhaps with the intention of formulating an understanding so as to know how to respond in a specific way when presented with similar cases, but not necessarily for the purposes of action. According to Hsiao-Chuan Hsia, praxis-oriented research involves a "purposive action," emphasizing both personal and social transformation. Perhaps with this idea in mind, praxis-oriented case study research can be thought of as a research methodology in which the researcher studies cases (or better yet becomes involved in cases) in order to sustain a cycle of questioning, reflecting, and acting upon multiple possibilities that may address the problem by changing how [the researcher] participates, by changing the ways in which [subjects] participate, and by identifying and working towards changing societal [problems].

—Shana

Critical Summary

At its most basic level, Patti Lather asks us to think about praxis as a philosophy that is based on a reflection on the individual and his or her relationship to, and positioning within, society. In seeking a dialogic, dialectic relationship between theory and practice the term *praxis* characterizes research that connects methodologies and theories with the political and practical concerns in the world. In other words, praxis lived out in case study research cannot avoid a critical, action-oriented stance aimed at challenging and changing societal injustices by emerging oneself in the tensions of emancipatory politics.

Kathleen Nolan

See also Case Study Research in Education; Critical Theory; Participatory Case Study; Power; Reflexivity; Researcher–Participant Relationship; Theory, Role of

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Primitivism

Primitivism is a philosophic position that identifies the ideal of human society with an original or natural state. It is an analytic device often utilized in case study research to compare and contrast cultural positions and constructions. It is a recurrent theme in political philosophy, literature, anthropology, history, cultural studies, art, and art history.

Conceptual Overview and Discussion

The word *primitive* first appeared in written form in the 15th century to represent "original" or

"ancestor," and it was primarily used in relation to animals and only occasionally to humans. In modern times, primitivism has become dichotomous in nature, normally used in juxtaposition between natural and modern urban industrial or commercial technological culture. Primitivism is most often understood as largely a post-Enlightenment phenomenon developed in reaction to the rationalism of the European Enlightenment. Jane Kingsley describes it as a belief that nature provides more healthy models of human behavior than does civilization, or those societies viewed as tainted or corrupted by societal, industrial, and technological development. The most popular expression of primitivism may be best exemplified by the mythology of the "noble savage." Jean-Jacques Rousseau, in his oft-quoted introduction to his book Émile, or On Education ("Émile ou de l'éducation"), epitomized this confidence in nature as the purest force, describing nature as inherently good and human technology and society intrinsically flawed. The use of the term spread to a number of emerging disciplines in the 18th century and took on meanings ranging from "simple" to "pure and original." As a scientific idea, it first appeared as a concept informing inquiry by anthropologists in the 1860s and 1870s. In 18th- and 19th-century European art history primitive was used to describe all artists and art created before the Renaissance, and by the 1920s it was widely applied to "tribal art" originating from colonized nations.

Since these beginnings, primitivism has at times been transformed from a conceptual device for exploring past and contemporary societies and changes into a variety of subcultural movements united in opposition to modern contemporary urbanized societies. As Christian Klesse and others have observed, primitivism in its modern form is popularly constructed as the antithesis of industrial technologically complex Western societies. Modern primitivism—for example, a subculture that originated in California in the 1970s—idealized the notion of "going primitive" to escape what proponents viewed as a corrupt industrial and technological North American society.

Primitivism as a theoretical concept has evolved into notions of *neoprimitivism*, which struggles with primitivists' absolutist notions of modern society, and recent attempts to reframe it as a virtue of European recognition and valuing of the

"other." Some Indigenous scholars, while often sharply critical of primitivism as a theoretical concept, have begun to reframe primitivism as a misunderstanding of symbiotic integration or coevolutionary development of nature and humankind.

In case study research primitivism is commonly and frequently utilized as a thematic vehicle in the interpretation and reinterpretation of cultures, ideas, and traditions and for inquiring into the strategies for and forms of cultural representation.

Application

Two exemplars of primitivism in case study research are Leah Dilworth's study *Imagining Indians in the Southwest: Persistent Visions of a Primitive Past* and Roger Sandall's book *The Culture Cult: Designer Tribalism and Other Stories.*

Dilworth's research foci are the representations of primitivism between 1870 and 1942 in the American Southwest. Dilworth concentrated on the representation of Southwest Indians during this period in four case studies: (1) the Hopi snake dance, (2) the Fred Harvey Company's tourism, (3) Southwest Indian artisans, and (4) connection between the primitive and the modern. She explores three major themes emerging from these case studies, including appropriation of Native identity. She identifies Indian pretenders and collectors as examples of the many forms of cultural appreciation and appropriation as a result of a primitivist view. Primitivism as a theoretical tool allowed her to dig deeply into the fertile relationships and interactions between Southwest Indian culture and the dominant American culture and identity. The use of primitivism as a theme in her case studies allowed her to compare and contrast and highlight cultural positionalities over time to explore inconsistencies and issues of issues of identity, appreciation appropriation, and cultural production and reproduction.

Sandall uses case studies of advocates of primitivism, including Margaret Mead, Karl Polanyi, and Ruth Benedict, as a means of comparison and contrast with advocates of modern pluralistic societies such as Karl Popper, Friedrich Hayek, and Francois Furet. Sandall's work concentrates on trying to discern and illuminate the salient reasons and societal and personal motiva-

tions for the attractiveness of primitivism to many enlightenment, modern, and postmodern intellectuals and its causal relationship to critical and often-cynical discourses on contemporary society. Sandall utilizes multiple case studies across time, space, gender, discipline, and nationality to demonstrate the versatility of primitivism in case study research.

Critical Summary

Primitivism is a widely and effectively used conceptual or thematic device in case study research within a wide range of disciplines. There is a large body of high-quality case studies that have used primitivism as a means for exploring historical and contemporary cultural values, arguments, individual and group actions, and even social and political movements. By its very nature, primitivism as a theoretical concept lends itself to case study research, because it begs comparison and is useful in bridging time, space, and culture.

Jason Price and Matthew Cameron

See also Case Study Research in Anthropology; Colonialism; Ethnomethodology; Eurocentrism

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PROBABILISTIC EXPLANATION

Probabilistic explanation is a form a reasoning that considers either the likeliness of an event happening or the strength of one's belief about an event or statement; that is, probability may be about things or it may be about our degree of belief about things. It has an important role for case study researchers trying to understand highly complex, uncertain, and multiple or single events.

Conceptual Overview and Discussion

Probability has become an increasingly important way of thinking about knowledge that is often uncertain and incomplete. Probabilistic explanation attributes to probability a helpful role by ascribing either a numerical value or a degree of credence to the likelihood of random events. It produces helpful causal descriptions of indeterminate phenomena by examining the relationship between cause and chance. Probabilistic explanation allows us to clarify why a random event happened and attempts to make sense of potential events by unifying diverse phenomena through limited patterns and principles. This form of explanation raises questions about our ability to reliably know what is uncertain and brings attention to the inherent limitations associated with case study research and chance phenomena.

There is ongoing debate with regard to the nature of probability. Views are sometimes radically varied and opposed to one another, for example, with the separation of radical belief and radical frequency theorists. Today, probability is most often associated with quantitative expressions and has become central to modern notions of scientific evidence. It has proven to be especially useful as an established field of applied mathematics, yet disciplines as diverse as medicine, biology, and politics have made use of probability and statistical analysis in order to deduce and understand causal relationships.

Causal inference is an important form of reasoning in case study research. Probabilistic explanation has become almost synonymous with *causation*, because it allows us to speak meaningfully about uncertain causal claims. With it, we may offer general accounts of causation in terms of contributing causes and factors, exceptions, and variations (e.g., "X will probably cause Y in most cases") rather than having to either affirm or deny a specific and fixed determining cause. This is important, because it allows us to make

informed decisions when we are researching either irreducibly complex systems for which there are multiple casual factors (when phenomena are overdetermined) or incomplete situations for which we have limited sets of case study data (when phenomena are underdetermined).

Belief and Frequency Probability

Interpretations of what probabilistic explanation is or should be fall into two broad categories. Some argue that it denotes a belief or personal estimation about the likelihood of an event and statement (hypothesis, argument, etc.). Others argue that it signifies a logical claim about long-term evidentially supported frequencies. These two interpretations are generally understood to be mutually exclusive.

Belief probability, sometimes called subjective, intuitive, credence, or inductive probability, identifies probability with an individual's degree of confidence in the hypothesis that a given event or outcome will occur. Often called subjective Bayesianism, belief probability links probable as an adjective to chance phenomena and statements in which one judges likelihoods by virtue of what is already known. For instance, believing a coin is tossed fairly, without evidence to the contrary, you would reasonably assign or assume a probability of 0.5 to the coin landing on "heads." This kind of probability confidence does not require repeatable events to generate a significant number of random occasions from which to derive a frequency probability; instead, belief probability is a matter of personal credence given to a single and unrepeatable event, statement, hypothesis, or logical abstraction. We rely on this kind of intuitive probability on a daily basis when we accept any projected random outcome.

Some scholars argue that because belief probability represents what a person would believe given available evidence that such beliefs are rational only if they are continually revised and updated in light of new evidence; that is, a rational degree of belief is less about belief *formation* and more about belief *updating*. This raises a general problem with belief probability, namely, that understanding or measuring degrees of belief is open to interpersonal disagreement. Not only do rational individuals often assign different probabilities to the same hypothesis or event, but also they often disagree on what

should count as sufficient reason to update beliefs.

Frequency probability, sometimes called objective, statistical, physical, or quantitative probability, identifies an event's likely outcome with the limit of its relative frequency derived from long-term observation. This form of probability is said to be knowledge independent because it is taken to be a property of the physical situation in which random events occur. For instance, the probability of a coin landing on "heads" is knowable, for frequency theorists, only after performing well-defined and repeatable experiments in which the coin's relative frequency or tendency of yielding "heads" is discovered. Probability in this sense is meant to find the value to be associated with the physical properties of the coin. This is in contrast to belief probability as the measurement of an expectation or assumption that relies on a state of mind and prior knowledge.

Frequency probability is always relative to a body of evidence as the stable frequency of long-term trials or experiments that generate significant numbers of occasions that may then be statistically analyzed. This is a strong empiricist view that connects evidence to experience. Frequency probabilities make claims about how the world is and how physical properties reveal relative frequencies. Through frequency explanations we are able to learn why probable events happen more often than less probable events.

One of the difficulties with frequency probability is that frequency theorists must make numerous personal judgments. For instance, it is difficult to know when one has observed and gathered all of the relevant causal information, what should count as relevant data, and when the correct explanation is produced by virtue of established statistical laws. Moreover, on a scientific realist's account there should be only one rational value that endures after repeated events are observed, yet this is not always the case. Frequency probability, while possessing a kind of certainty and reliability that belief probability seems to lack, is nevertheless open to many of the same criticisms regarding judgment and interpretation.

Application

The application of frequency probability is particularly helpful when we want to understand phenomena that are unpredictable on their own. By observing

many discrete uncertainties of random events we may predict general patterns through statistical laws in ways individual events could not support. Being able to make useful predictions based on these kinds of observations, whether about morality rates, human population behavior, and so on, is enormously helpful.

In the absence of statistics or repeatable experimental means we may appeal to belief probabilities by asking what a reasonable belief should be in regard to the likelihood of a given event, statement, or hypothesis. What are the chances that X is the cause of Y given what is personally known about X in other situations? In single case studies, belief probabilities are more dominant because they do not require repeated observations and random experimentations. As a reflection of our basic intuitions and beliefs about available evidence and likelihoods, belief probability explanations allow us to be nonreductionist, nondeterminist, and confident in the occurrence of more probable events; when we have multisubject case studies in which there are many complex issues and subjects or when we have only a limited sample space of events and observe uncertainties for which we may exercise little experimental control.

Critical Summary

Although belief and frequency theorists disagree on how and what data are to be gathered, how to design the most useful experiments (if any), and how to interpret results, there remain a number of benefits to the application of probabilistic explanation in case study research. By using probabilistic explanation we may explain phenomena that are accepted as having only probable causes within a select sample space of events without invalidating our research because we have not identified absolute determining causes. Probabilistic explanation allows us to deal confidently in situations with incomplete knowledge and seemingly unpredictable phenomena.

Iason Christopher Robinson

See also Explanation Building; Indeterminacy; Statistical Analysis; Statistics, Use of in Case Studies; Underdetermination

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PROBLEM FORMULATION

The word *problem* comes from the Greek *problema*, meaning, originally, "a shield, bulwark or a hurdle, or an impediment." Although there is a range of meanings in present-day usage of the word, it retains the sense of an impediment, a blockage, an unresolved dilemma, or something that stands in the way of moving forward. Problems come in various forms, depending on what it is that constitutes the hurdle or impediment. Among these, for example, are practical problems, ethical problems, political problems, and intellectual problems.

Intellectual problems are characterized by curiosity or puzzlement, and it is the effort to solve such problems that drives scientific research, including case study research. To be sure, it is usually some other kind of blockage standing in the way of human action, such as a practical, ethical, or political problem that ultimately motivates research; however, it is only when curiosity arises as to why the blockage exists, or how it might be removed, that research begins. Thus, problem formulation is the act of identifying an unresolved dilemma for further study and lays the foundation for ensuing research.

Conceptual Overview and Discussion

Intellectual Problems

It is intellectual problems that give rise to and drive scientific research. Intellectual problems are different from other types of problems in that they arise within the human mind or within human knowledge. They arise in the attempts of human beings to make sense of reality. Intellectual problems are characterized by the curiosity or puzzlement they cause. They arise when we discover, as Karl Popper puts it, that something is not in order with what we think we know, or, viewed logically, it is when we discover an apparent contradiction between our supposed knowledge and the supposed facts. Intellectual problems are solved by explanations that remove the contradiction that gave rise to inquiry. In this way, they satisfy the curiosity that drove the researcher to seek an explanation.

There is a long tradition going back at least to Aristotle according to which intellectual problems are understood to be questions. The word *problem* is still widely used in this sense. However, as Jagdish N. Hattiangadi notes, the existence of idle (i.e., unproblematic) questions is generally recognized. This gives rise to the question of what it is that distinguishes problematic from unproblematic questions. The word *topic* is also widely used as a synonym for *problem* yet, as with idle questions, there are boring (i.e., unproblematic) topics. It is the discovery of an inner contradiction that creates problems for knowledge.

Ethical Problems

Ethical problems exist only for human beings and only because they, at least most of them, have a sense of right and wrong, that is, a conscience. Ethical problems would not exist for someone without a conscience; they arise when a person is torn between values. One may be torn because one wants to do something—say, for pleasure—while believing it to be wrong. One may have to choose between evils. For example, one may believe it is wrong to tell a lie and that it is also wrong to allow someone to die if one can prevent it, yet one may find oneself in a situation in which it is only by lying that one can save a person's life.

People sometimes intellectualize, that is, they puzzle over how to solve ethical problems, and sometimes they discover or invent solutions that allow them to escape from dilemmas of conscience. Yet they need not necessarily do so. Ethical problems may be "solved," for example, simply by choosing the option that hurts one's conscience less.

Political Problems

Political problems arise from people having to live together in the same political community. Despite differing interests, views, and likes and dislikes, decisions applying to the whole political community have to be made. An American member of Congress, who needs the support of two organizations that have opposing positions on a particular bill, has a political problem. A Canadian voter who supports a prime minister but detests his or her member of Parliament, who belongs to the prime minister's party, faces a political problem in deciding how to vote. Problems may have both political and ethical aspects: An office-holder may need more votes in order to win re-election but can gain more votes only through election fraud, which he or she believes to be wrong. Political problems may also sometimes be solved by intellectualizing them, inventing previously unthought-of ingenious solutions, and implementing them. However, political problems can also be solved without puzzling over them at all, by using such nonintellectual political skills as arm-twisting, persuasive talent, verbal obfuscation, and crude intrigue.

Practical Problems

Practical problems are a broader genre. They arise when some impediment to practice or action arises. Not only humans but also other animals may face practical problems. A large tree has fallen across a road, preventing a person or animal from reaching his or her destination. A person has run out of money. A person or animal is being pursued by a predator. As is true for ethical and political problems, practical problems can often be solved without puzzling over them, without intellectualizing them. A strong man or animal may, for example, without much thinking push the tree aside. The problem of running out of money can be solved without much intellectualization, for example, by getting a job, borrowing the money, or stealing it. The person or animal may escape the predator by running faster or by ducking into some protected place.

Application: Solving Nonintellectual Problems by Intellectualization

Except in pure science, it is often not intellectual problems, but rather problems that are ethical,

political, or practical in character, that draw attention. Such other kinds of problems do not necessarily evoke curiosity. Although the need to find solutions may be obvious, there need not be anything puzzling about them. As the preceding examples illustrate, such problems can often be solved without intellectualizing them. However, one may wonder about how such problems came to be, and how to solve them. The intellectual problems underlying such curiosity may lead to research, and solutions to them may result in solutions to the practical, ethical, or political problems that originally drew attention.

Although some thought will, of course, be involved in moving the tree, securing the money, and escaping the predator, the intellectual problems solved will be trivial. To be sure, better solutions might have been found by intellectualizing these problems. Some new technology might be invented to remove the tree from the road. Some ingenious scheme might be worked out to solve the money problem without working, stealing, or borrowing. Some carefully planned maneuver could be thought out to elude the predator. Yet people solve countless problems in their daily lives in ways that involve little, if any, intellectualization.

In some instances, the role of intellectual problems is easy to see, because it is they that arise and are solved first, with practical applications coming only later. Alexander Fleming did not set out to solve the practical problem of creating an antibiotic; he was driven to his discovery by curiosity as to why bacteria would not grow in properly prepared cultures. The solution to this intellectual problem—the discovery of the antibacterial agent penicillin—was followed by its practical application as an antibiotic.

Intellectual problems are widely confused with the nonintellectual problems out of which they arise. When scientists talk about their work, they usually speak of practical problems, such as curing diseases or sending satellites into orbit. Of course, solutions to such practical problems usually involve finding explanations for things that are not understood. This is widely recognized in the abstract. Most people know that scientists grapple with unsolved puzzles on the way to solving the practical problems for which they are trying to find solutions. However, because it is usually the practical problems that occupy center stage, the distinct, autonomous role

that intellectual problems play on the way to their solution is often not sufficiently appreciated.

Sometimes, a practical problem is intellectualized and the intellectual problem solved, yet the practical problem that gave rise to it remains unsolved. A physician who puzzled over an unusual set of symptoms may solve the puzzle by finding a correct diagnosis. However, although this will solve the intellectual problem of explaining the symptoms, if there is no cure then the diagnosis will not solve the practical problem. Similarly, the causes of war, poverty, or underdevelopment may eventually be fully explained, yet this will not necessarily lead to the solution of these practical problems.

Critical Summary

Some people seem to possess a natural curiosity and ability for recognizing, formulating, and solving intellectual problems. At the same time, an awareness that something is not in order with one's supposed knowledge gives rise to at least some measure of psychological stress. Some people experience discomfort when confronted with the threat that open problems pose to the orderliness of their experience, and their minds work instinctively to close or obscure them. Sometimes, in facing real-life problems, simple, crude, nonintellectual solutions will be preferred. Problem formulation requires of the researcher a certain taste for and tolerance of ambiguity.

Intellectual problems usually arise, as Karl Popper notes, with a vague sense that something is not in order with our supposed knowledge. The next step is to try to locate and articulate the logical contradiction(s) at the root of this feeling. This can be difficult, because so much of our knowledge is taken-for-granted, commonsense knowledge that lies below the horizon of consciousness.

Fred Eidlin

See also Deviant Case Analysis; Explanatory Case Study; Falsification; Hypothesis; Language and Cultural Barriers; Rival Explanations

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PROCESS TRACING

Process tracing is a data analysis method for identifying, validating, and testing causal mechanisms within case studies in a specific, theoretically informed way. When first popularized by Alexander George and Timothy McKeown, this method referred to a withincase analysis to evaluate causal processes of decision making, charting various initial conditions to their linked outcomes. Stephan Van Evera and, more recently, Alexander George and Andrew Bennett use this term to mean the tracing of any causal process by which the initial conditions are translated into outcomes. Process tracing is a robust technique to test theories of causality in action by examining the intervening steps and, as Jeffrey Checkel claims, brings theory closer to what is going on in the real world. It has been used within the fields of political science, comparative politics, organizational studies, and international relations, in addition to examining the cognitive processes underlying decision making, creativity, and problem solving.

Conceptual Overview and Discussion

Process tracing effectively captures how an issue, situation, or pivotal event evolves, especially when the focus of the case is subject to the dynamics of change and time is an organizing variable. It is used to "unwrap" the causal links that connect independent variables and outcomes, by identifying the intervening causal processes, that is, the causal chain and causal mechanisms linking them. It also is able to consider responses of social actors in their context and to trace events from a static precausal point to the eventual outcome of interest. A *process trace* allows case researchers to account for equifinality, that is, a characteristic of open

systems by which a given end state can be reached by many potential means. It offers the possibility of mapping out one or more potential causal trajectories that are consistent with the outcome and the evidence in a case. When applied to multiple cases, researchers are able to chart the potential complexity of differentiating alternative causal paths.

The issue of the starting point of the tracing process is highly contentious. Some researchers begin their process trace in moments of critical junctures, whereas others argue that only contingent events can trigger path-dependent processes. Whichever position one adopts, it is crucial for case researchers to theoretically justify their choice of the period under study. Although the starting point may be contested, the end point is easier to establish, because it is determined by the outcome of interest.

Why would researchers use process tracing? This methodology can encapsulate all of the intricacies and nuances leading to the outcome of a dependent variable more successfully than other theoretical frameworks. It is particularly suited to contexts in which decision making lies at the heart of the investigation (e.g., policy studies) or for grand-scale events (e.g., international relations). It can also explore the various stimuli (defined as independent variables) to which the different social actors react in relation to the internal and external conditions influencing the issue, situation, or pivotal event. Because it is based on a chronology, process tracing identifies important emergent influences that a more "snapshot" approach may miss and can control for the impact of omitted variables. The data used for this method are qualitative in nature and can include historical memoirs, interviews, press accounts, and archival documents. Multiple data streams are necessary, because rich and varied sources are required for process tracing. As well, the method is time intensive, frequently requiring years to collect the data and complete the analysis.

Application

To use this method, case researchers first need to state their theories of causality. Researchers generate a set of hypotheses, preferably competing hypotheses, about the relevant causes and how these causes connect to the final outcome under examination. It is this central reliance on hypotheses that distinguishes the process trace as a scientific method. Second, case researchers must set the criteria for the independent variables and operationalize the outcomes (the dependent variables). The next step is to explicate the expectations about what one should observe in the case if the theory is valid; as well, case researchers must spell out what would be observed if the causal theory is false. These expectations are the theoretically predicted intermediate steps that allow for statements about causality; this stage of the process brings theory and data into close proximity. Researchers then reconstruct an explicit chronology of the sequence of events, which comprises the process under investigation. This sequenced connection is not a simple task; it requires a precise conceptualization of the types of events that created the causal chain as well as those that did not. This chronology generally takes the form of a narrative: storytelling to uncover a causal mechanism. Embedded within this narrative are the theoretical variables that have been identified in the research design. The narrative functions as an explanation in which the movement through time and space of the process or event under investigation is deliberately couched in an analytic framing of interactions with the dynamics that will explain the phenomenon of interest.

The final step is to explore the case looking for congruence or incongruence between the expectations and the observations. Process tracing works only if case researchers hold the operational definitions constant in a series of elucidated steps: A causes B; B then causes C; C then causes D, until the identified dependent variable (the outcome) is reached. This stepwise procedure produces a series of mini-checks, which cause case researchers to think hard about the connection (or lack thereof) between expected patterns and what the data say. This procedure minimizes any theoretical bias that case researchers may hold and any inferential errors that may arise from relying on only structured focused comparisons. Process tracing produces a qualitative description of how an event unfolded, which can form the basis for a comparison with similar situations.

There are, however, significant challenges to using this analysis technique. Case researchers can easily lose sight of the impact of larger social forces by examining the fine grain of process. In their attempt to uncover the micro-underpinnings of individual behavior that connect the hypothesized cause and outcome they can become blind to the bigger picture. As well, there are significant data requirements. A variety of sources must be drawn upon because of the very nature of complex social events.

Jeffrey Checkel outlines an epistemological trap that may ensnare researchers using this technique. Qualitative data form the basis of the data examined in process tracing. Qualitative data generally invoke constructivist epistemological assumptions (i.e., subjectivism). However, the process-tracing methodology of testing causality has strong roots in positivist or postpositivist traditions, suggesting that the method brings a philosophical assumption of objectivism into the analysis. This clash of assumptions can undermine the soundness of any analysis using process tracing. Because method is inextricably linked to epistemology through theoretical perspectives, it behooves case researchers to fully explicate their epistemological assumptions.

Critical Summary

Process tracing permits the study of complex causal relationships, especially those characterized by multiple causality, feedback loops, nonlinear dynamics, tipping points, and complex responsive processes. It can also lead to the formulation of new theories on the causal mechanisms that connect correlated phenomena and permit the testing of these theories on other cases. It provides a strong basis for causal inference if an uninterrupted causal path exists linking the purported causes to the observed outcomes as specified by the hypotheses being tested.

However, in order for case researchers to effectively use process tracing, cases must be sufficiently data rich, allowing researchers to see the multitude of stimuli, dynamics, and interactions that can ripple to events. As well, this technique can present challenges to the validity and reliability of the measures of the variables. In terms of validity, a key issue is whether the independent variable and its criteria sufficiently capture what it is intended to measure. In terms of reliability, the challenge lies in the ability of other researchers to duplicate the results given the idiosyncratic nature of the operationalization of outcomes and the explication of the expectations. The use of a predefined yardstick or a clear and

concrete description can greatly enhance validity and reliability. Although unable to generate grandscale theory, process tracing's strength lies in its ability to examine interactions and question how something came to pass using qualitative data sources, generating mid-range theory.

Rosemary C. Reilly

See also Complexity; Constructivism; Juncture; Postpositivism; Processional Case Research; Temporal Bracketing

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PROCESSUAL CASE RESEARCH

Processual case research involves the empirical examination of how and why some significant temporally evolving phenomenon unfolds over time. For example, processual case research has been used to examine identity development in individuals; group decision making; organizational change; the process of program implementation; and the process of emergence, development, and dissolution of relationships over time.

Conceptual Overview and Discussion

Andrew Van de Ven identifies three key meanings of the word *process* in research. First, the word

may refer to a causal mechanism that links dependent and independent variables in a conceptual framework. Second, it may refer to a class of variables that characterize temporally evolving phenomena on static scales. For example, decision making may be expressed as more or less rational, more or less intuitive, and so on. These first two meanings are associated with the development of what Lawrence Mohr and others have labeled variance theories, in which the relationship between variables constitutes the main theoretical form. The third meaning of process focuses instead on the sequential unfolding of events. In processual case research it is this third meaning that is predominant. This meaning is associated with the development of what Mohr calls process theories, in which temporal relationships among activities, events, and choices replace relationships among variables as essential conceptual components. Process theories may take the form of a series of deterministic phases (e.g., organizational life cycles); however, other theoretical forms are also possible, including models with parallel paths, feedback loops, nondeterministic branch points, interactions, and reversals.

Another distinction relevant to processual case research concerns the status of processes versus things in understanding the nature of the world. Although most social science research implicitly views the world as composed of things that maintain their identity over time even as they change (a substantive ontology), process philosophers have argued that the essence of the world lies in movement or processes (a process ontology). Nicholas Rescher's representation of this perspective is eloquent: "Process is fundamental: The river is not an object but an ever-changing flow; the sun is not a thing, but a flaming fire. Everything in nature is a matter of process, of activity, of change" (p. 3). A good deal of processual case research implicitly retains a substantive ontology and formulates its objectives around understanding how things change over time. However, some researchers have explicitly adopted a process ontology, focusing rather on how flows of activity continually reconstitute apparently stable phenomena, such as organizations, structures, cultures, identities, routines, and institutions. Examples of such case research include Stephen Barley's classic work on how organizational structure is regenerated through ongoing interactions surrounding technology. These conceptual distinctions may influence research design choices as well as modes of data collection, analysis, and theorizing.

Application

With its emphasis on diachronic phenomena, processual case research raises some particular methodological and practical issues. For example, drawing boundaries around the object of study is often a challenge in case study research, particularly so when that object is a process. Thus, those who have studied organizational decision making have tended to define a decision process as constituting all the events and activities leading up to a commitment to action. Yet, when does a decision begin? (When someone first identified a problem? When a committee was struck?) When does it end? (When the leader said so? When the board of directors approved it? When it was actually implemented?) What criteria determine which events and activities should and should not be included? As Andrew Pettigrew, an early proponent and practitioner of processual case research, has observed, process phenomena tend to have ambiguous boundaries, spreading themselves out over space and time.

Various solutions to this dilemma can be considered. One solution is to choose topics for study for which processes are bounded and easily defined. However, this approach may result in a bias toward research topics that are tractable rather than important. A second approach involves developing rules for inclusion and exclusion that are then applied systematically to the empirical material. However, such slicing and separating can be rather arbitrary, artificially squeezing out the ambiguity inherent to the processes studied. A third solution might be to explicitly represent linkages and interactions among processes within the research itself. Finally, researchers may also decide to accept ambiguities as an inherent part of the phenomenon; however, this last approach carries the risk of expanding research boundaries and may lead to difficulty in deriving parsimonious theoretical insights.

A second design dilemma in processual case research concerns *temporal orientation*. Should the research trace processes backward into the

past, or follow them forward in real time? Retrospective case research generally starts from knowledge of an outcome and works backward to understand how that outcome came about. For example, Graham Allison's case study of decision making during the Cuban missile crisis is a classic retrospective processual case study that investigated a remarkable series of events. The advantage of retrospective case studies is that the clear outcome narrows down the range of phenomena that need to be examined, focusing data collection and analysis. However, knowledge of the outcome can also lead to hindsight bias, with both respondents and researchers unwittingly rationalizing past events so that they seem more linear than they really were. Retrospective processual analysis also depends on obtaining reliable data on key events sometime after they have occurred. Given the limitations of human memory, researchers will usually need to interview numerous respondents and to complement these with archival traces produced at the time of the events.

Real-time longitudinal case studies offer greater potential for capturing processes in all their richness. Such studies will generally include direct observation of events as well as periodic interviews and the collection of documents. The difficulty with such a research design may be its open-endedness, with few a priori criteria to distinguish what is important from what is not. Longitudinal case study research can also be very time-consuming. Processes may extend over longer time periods than expected without the emergence of a clear outcome.

The choice of a retrospective or longitudinal design will also depend on the degree of detail required. Researchers such as Stephen Barley who are interested in how microlevel activities regenerate macrolevel phenomena may find real-time observation essential. Those interested in the broader sweep of organizational or institutional change over longer periods of time may have to work mainly with retrospective data. Dorothy Leonard-Barton has argued persuasively for the advantages of combining a detailed retrospective case with real-time cases in comparative case study research. Real-time cases provide rich understanding of particular situations that are helpful in sensitizing researchers to phenomena that can then be validated on a larger sample of retrospective cases that can be carried out more efficiently.

The data sources used for processual case research are generally multiple and eclectic, with particular emphasis on the "big three" of qualitative research: (1) observation, (2) interviewing, and (3) archival documents. These methods have complementary strengths and weaknesses. From a temporal perspective, observations are embedded in the present, documents are embedded in the past, and interviews are temporally versatile to the extent that respondents can draw on their memories and can link temporal phenomena across time. In terms of content, observations are crucially useful for understanding evolving patterns of interaction and behavior; documents are an important source of data on key event chronologies and often provide records of arguments and justifications; and interviews are again versatile—but their unique strength lies in the capacity to access the internal life of people: interpretations, feelings, beliefs, and so on. Finally, each source has its own limitations. Observations are localized and ephemeral and depend critically on the observer as instrument. Documents emphasize the "official" truth and tend to gloss over conflict and complexity. Interviews are artificial interactions that can be influenced by lapses of memory, impression management, the moods of the participants, and the quality of the rapport between the interviewer and interviewee. They can, however, be multiplied quite easily, allowing different perspectives on temporally embedded phenomena to be brought to bear.

There is also room to broaden the repertoire of data sources in processual case research. For example, Julia Balogun, Phyllis Johnson, and Anne Huff proposed the use of respondent diaries as a way to capture temporally embedded interpretations from a variety of perspectives. Respondents may also be mobilized through focus groups or collaborative research initiatives, again broadening the richness and scope of data collection. In addition, the potential contribution of statistical data sources and periodic surveys should not be underestimated.

Because of its complexity, the derivation of theoretical insight from process data can also be particularly challenging. Ann Langley proposed seven different strategies for approaching this task. These include (1) composing case narratives, (2) quantification of incidents, (3) using alternate theoretical templates, (4) grounded theorizing,

(5) visual mapping, (6) temporal decomposition, and (7) case comparisons. The narrative strategy involves the reconstitution of events into an extended verbal account, or "thick description," and is associated with ethnography or organizational history. When data sources are eclectic this may be a helpful strategy to organize the data prior to applying other techniques. In contrast, in the quantification strategy processes are decomposed into micro-incidents that are coded into a limited number of quantitative categories that can then be analyzed using statistical methods.

The other strategies proposed by Langley lie between these two extremes. For example, the alternate-templates strategy involves the top-down application of multiple a priori theoretical lenses to the same process data base. Graham Allison's study of the Cuban missile crisis is an example of this approach. In contrast, in the grounded theory strategy theory is derived by inductive bottom-up coding from the data. Connie Gersick's study of group development is a fine example of processual case research using this approach. The visual mapping strategy involves the representation of processes using flow charts, tables, and other kinds of visual displays.

Sensemaking can also be stimulated by various forms of comparison. For example, the temporal bracketing strategy involves the generation of comparative units of analysis in the form of distinct time periods, as in Stephen Barley's study of structuring in two radiology departments. In contrast, the synthetic strategy involves the comparison of processes as wholes across different cases.

These strategies are not mutually exclusive and in practice will often be used in combination. Each strategy may give rise to a rather different theoretical product depending on the researcher's epistemological preferences. For example, some strategies (e.g., quantification, synthetic strategy) are more likely to lead to predictive models or causal laws; others (e.g., grounded theorizing, narrative strategy) may generate more interpretive understandings.

Critical Summary

Processual case research can raise a variety of quality issues. A first issue concerns credibility: Is the researcher's account believable? This may be of

particular concern when the researcher was personally involved in the processes being studied as a participant or nonparticipant observer. Although such involvement should lead to rich data because of close proximity to the situations studied, legitimate questions concern the degree to which the researcher influenced the events studied (contamination), the degree to which the researcher's vision is distorted by absorption into the research site (going native), and political alignments that might influence data quality and interpretation. These concerns can be mitigated significantly by the use of multiple researchers (including insiders and outsiders); multiple sources of data; documentation of personal biases and relationships with the site; and rigorous methods of database organization, analysis, and reporting.

A second challenging issue concerns contribution. There is a danger that this type of research will generate interesting descriptive narratives but slim theoretical insight. The analysis and sensemaking strategies described earlier may be helpful in moving beyond anecdotal descriptions. Also, designing research to provide scope for comparison helps to move thinking toward a more abstract level. Comparisons may be made across time, between different cases, or between cases and a priori conceptual frames. Note, however, that most process research has a creative component that is difficult to pin down systematically. A priori theoretical knowledge, personal experience, and systematic analysis can all contribute to insightful processual case research, although they will not produce it mechanically.

Generalizability can be another concern, given that sample sizes are likely to be rather small in this type of research. Different approaches may be adopted to confront this. Researchers from a more positivist tradition will attempt to replicate findings on comparable cases, aiming to generalize to theory (i.e., showing how the same theoretical relationships are reproduced from case to case despite differences in empirical details). Working from a constructivist perspective, Yvonna Lincoln and Egon Guba offered a different take on the issue, preferring the notion of transferability to that of generalizability. They argue that the researcher's task is not to generalize but to provide sufficient contextual detail in their process descriptions to enable an unfamiliar reader to determine whether and to what degree the insights obtained from any particular case might be transferable to another situation that they know well. Clearly, these two approaches tend to push the researcher in opposite directions (demanding abstraction to higher-level constructs in the first case and attention to detail in the second). Process researchers therefore need to position themselves carefully with respect to these possibilities.

Research methods in the social sciences have often tended to ignore or simplify the role of time. Processual case research pays attention to temporally evolving phenomena and can therefore play an important role in improving understanding of the social world. Further suggestions concerning approaches to processual case research are provided by Andrew Van de Ven, Andrew Pettigrew, Ann Langley, and Dorothy Leonard-Barton.

Ann Langley

See also Generalizability; Grounded Theory; Process Tracing; Qualitative Analysis in Case Study; Sensemaking; Temporal Bracketing

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PROGRAM EVALUATION AND CASE STUDY

An early insight of some educational evaluation theorists was of the convergence of case study and program evaluation: the fusion of method with purpose. Program evaluation and case study came to be mutually bracketed. In the field of educational evaluation, *responsive*, *democratic*, and *illuminative* methodologies were developed in parallel with case study methods, with the same authors contributing freely to both fields.

Case Study and Program Evaluation

A program under evaluation would typically cover too many sites to allow for the real-time observation of context that has emerged as essential to comprehend the texture and experience of the innovative program under investigation and to explain its workings. Context emerged early in the development of program evaluation as a key determinant of the success or failure of innovation. Multiple sites imply multiple contexts, and these demand a qualitative sampling strategy. The subsequent qualitative study of cases came quickly to vield high-quality explanatory data, especially of how an innovative program interacts with context to generate effects. Evaluators found an instrument that invited the direct observation of innovation. In a 1979 article reviewing the previous 10 years' experience in program evaluation, Ernest House noted a tendency to locate evaluations within a broader analysis of social change. Each program evaluation was a case study of social

innovation. Some people called evaluators the "storytellers of innovation."

The intimacy of case study, along with its capacity to reveal contingencies (dynamic relationships) and to garner direct testimony in the form of judgmental observations of events, also meant that evaluators were able to conduct direct observation of change processes—or at least to ask people about change to which they had been exposed. Evaluation conducted in real time and in the (existential) here-and-now means that policy shapers do not have to wait for ex post impact assessments to gain an understanding of change and how their programs might or might not stimulate it. Case study offers the program evaluator insights into the substrata of program and policy formation.

This, itself, gives rise to another insight: that each program evaluation is also a case study of society and its institutions. The thinking goes like this: All programs demand to be understood in their own terms through the analysis of context and contingency at the many levels of immediate experience, that is, from classroom and sociology to office and ministry. A program is a particularity, bounded existentially as an "instance" in action—the equivalent in society of a laboratory experiment. The case is defined as N = 1. However, all educational programs are also saturated with the culture that sponsors them: They are society in microcosm. Through the analysis of a single educational program we make transparent aspects of society at large, its structures of authority, and its political values—for example, its cultural tolerances and leanings.

This capacity for case study to not only provide insight into the unique but also to permit generalization of results allows the evaluation community to develop a methodology and a practice freed from the normal constraints of academic and professional disciplines. For example, the study of curriculum and pedagogical change in one school, provides a platform for generalizing data to other schools, curriculum projects, and pedagogical strategies. Beyond that, however, that same school case study might provide insight into, for example, the link between professional and organizational development; the integration of knowledge and action; the tension among policy, institutional management, and professional practice; or the grounding of professional action in biographical experience. These insights are transportable to other contexts, such as policing, nursing, the performing arts, and other fields where innovation and change confront similar challenges and characteristics. One can generalize *within* a program (from practice to organization to institution and to policy, or in the reverse order), and one can generalize *across* programs (learning how policy and practice are related in one setting and adapting that learning to other relationships).

With a good understanding of the dynamic between program action and context the evaluator can come to each evaluation with a basic understanding of program cultures and innovation, aware of connections to larger social changes. Case study conducted serially (not cumulatively), it is claimed, allows the evaluator to work out what is unique to a context and what is transferable across contexts. The promise is that a program evaluation can, by being grounded in case study methods and principles, allow generalizations about social innovation to be made at the political level but grounded in local stories. Now, the combination of case study and program evaluation gives rise to a form of political engagement.

Evaluation, Case Study, and Governance

The special attraction of case study to democratic evaluation is the real-time proximity to people and contexts that allows for negotiation and authentic understanding—the capture of firsthand accounts. Evaluation conducted in context is necessarily an interactive, iterative effort with people allowing for the emergence of accounts that are tested empirically for their external validity. To conduct an evaluation case study, one has to negotiate access because the inquiry can proceed only if consent has been obtained. In case study evaluation this almost inevitably means negotiating inquiry agendas. Once in, to maintain consent, the researcher has to continue to negotiate his or her way. Pretty soon, the case study evaluator is (to some extent or another) negotiating the meaning of data and their analysis. The enhanced quality of data that emerge from negotiation and sharing control of knowledge with the case study community is persuasive in itself—especially in those areas that lie beyond indicators-based measurement and where we rely on people's judgment.

Information exchange as a key evaluation method became a characteristic form of data generation in case-based evaluation in which information from one constituency was used to provoke evaluative reflections from another (a form of triangulation), not least in the exchange of accounts between the more and the less powerful. The proximity demanded by case approaches proves to be ideal for generating first- and then second-order data, checking data against observed realities, and negotiating improved understanding with program participants. Observation-based interviewing emerged in this context. The benefits to evaluation are multiple. Participants (practitioners, citizens, patients, pupils) are invited to participate not on the basis of equity and fairness but because their personal experience and judgment are vital to understanding a program and its potential in ways not otherwise accessible to the evaluator. In a school curriculum project or a community policing initiative it is the teacher and police officer who have the expert view. This is collaboration, not participation. Another promise of case-based evaluation, then, is the capacity to put public and program policy to the judgment of those whose work and lives it affects.

It was not lost on evaluation theorists that casebased program evaluation is also an instrument for enhanced public accountability and an opportunity to inform the public about policies designed to shape their lives and work. Indeed, for the democratic evaluator this is an opportunity to invert accountability relationships: In addition to holding practitioners to account for their success at realizing the aims of policy, program managers and political elites can be held to account for being responsive to the complex realities of professional practice. Accountability can take the form of information exchange and deliberative democratic process; case study becomes defined as a site where this happens. In this way, case-based evaluation analysis can integrate otherwise-fragmented social and political systems by using negotiation to arrive at plausible, widely accepted versions of events and priorities; evaluation case study turns out to be an instrument for social consensus. The final link is made between program evaluation and governance. Now evaluators find themselves not just evaluating initiatives promoting democracy and social justice; evaluation itself becomes a democratic process promoting (information) rights.

Key Characteristics of Evaluation Case Study

The three key characteristics of case study methodology developed within an evaluation framework are (1) *negotiation*, (2) *contextualization*, and (3) *democratization*.

- 1. Negotiation. The intimacy of case study field work, the developmental nature of sampling, and the emergent nature of the theoretical construct demands that the field worker negotiate his or her way. This has significant implications for the organization of inquiry. Unlike studies, for example, that assign field roles of relatively low conceptual challenge (e.g., administering tests or questionnaires), case study requires the field worker to conduct situational analysis, to use independent judgment, and to theorize on the ground—frequently in interaction with respondents. The former approach to inquiry locates intellectual control in project management, whereas case study locates it at the field researcher level. It is this proximity that allows/demands the use of negotiated understanding. Field researchers are more likely to build strong relationships with program participants.
- 2. Contextualization. The key variable here is context. Some scholars argue that case study *is* the study of context. This makes the theoretical construct of the inquiry unpredictable and, to a degree, situational. Again, this reduces central/senior researcher control in the enquiry team. It is understanding of contexts that allows not only for the use of a *contingency theory*—that is, the understanding of how people, events, and phenomena are dependent and mutually dependent on each other—but also how they interrelate in dynamic ways; for example, policy shapes practice, but over time emergent practices and practitioner discourses feed back through networks to shape policy.
- 3. Democratization of inquiry. This can be argued on a basis of rights, that is, information rights that pertain to individuals with a legitimate interest in the program, or whose lives are implicated by it, or who have obligations in respect of it. This concerns, in particular, the citizen who would generally be counted among those whose lives are most affected by innovative programs but who have the least frequent access to evaluation. Case study evaluation,

with its foundations in (somewhat more) symmetrical relationships and more transparent methodologies, raises questions about who controls the criteria of judgment (sometimes pitting the junior field researcher against the research manager).

Methodological Implications

Although they have caught the imagination of evaluation theorists, such advances have been little practiced in the advanced industrial world—even as democracy has been subject to erosion by neoliberal administration. It is easier to promote the methodological implications of casebased evaluation than to put them into practice—especially in the context of the contractual conditions under which program evaluation usually takes place. What follows are some of the methodological challenges of the practice of case study evaluation.

Understanding the politics of the program. Where evaluators are at work, judgments will be made of the quality and merits of a program. Because all programs can be characterized as political systems, the evaluator needs to have a good understanding of how power and authority function and how the evaluation itself is positioned in relation to them. For example, entering a program with a senior managerial mandate creates one set of likely expectations and assumptions about the evaluation's purpose and allegiance; entering at the level of practice creates another set. In casebased evaluation the evaluator will be closely aligned to the political system that is the case (there is, in a sense, nowhere to hide), because his or her job is to make power and its relationships transparent. This challenge is intensified. This is not to say that the evaluator assumes a political position but that he or she acts in a way that is sensitive to the politics.

Negotiating access. Case study takes the evaluator close to the action and subjects people to what may feel like scrutiny that is both intense and judgmental. Because this is evaluation, respondents would be wise to assume that observation of their work and publication of their views may have consequences. Control over the evaluation—for this is what is implied by negotiating access—may be shared with

respondents (evaluands), perhaps with the use of an ethics agreement governing mutual expectations and guaranteeing procedural confidentiality.

Negotiation of methodology. The methodological intimacy of case-based evaluation means that the evaluator has to respond to the rights of participants, including the right to be represented in terms with which they are comfortable and that are meaningful to them. This may sometimes mean going so far as to respond to participant suggestions of how to go about the inquiry. (In one evaluation, for example, access was withdrawn by a school until the evaluators agreed to conduct their observations in a given location or situation where the school felt its character and values were best represented.) Case study imposes a collaborative imperative on the evaluator.

Negotiation of data. Given the same fears, evaluators typically need to negotiate their way and, in particular, the use of data. As a general rule, evaluators may assume that people have rights to their own data. They may, for example, need more than one opportunity to rehearse, adapt, and develop the views they eventually give to the evaluator. Confidentiality of data allows this process to take place up to the point where the evaluand is happy to release the data.

Understanding context and contingency. The main value of case study is its capacity to reveal relationships and context as determinants of program action; for example, to understand a curriculum innovation you have to understand each school in which the innovation is being implemented-even "reinventing the wheel" of analysis on each site. Local cultures, circumstances, communities, personnel, rituals, and so on all influence the character of the innovation. Equally important is that understanding a school requires understanding its local political situatedness, and this requires an understanding of national political and professional contexts. Contexts are nested and bracketed in ways that require explanation. Where other methodologies seek to control variables so as to narrow down the possibilities of attribution, case-based evaluation seeks to embrace the full range of variables so as to feed comprehensive explanations.

Combining methods. Case-based evaluation is neutral as to method. The selection of methods is entirely dictated by the nature of the field under scrutiny, by the information needs of stakeholder audiences, and by the orientations of decision making and judgment. Robert Stake has argued that the qualitative-versus-quantitative divide is artificial and inaccurate as a descriptor of options in relation to case-based evaluation. A dynamic tension (binocular vision) between internally derived quality criteria and externally imposed quality standards is more appropriate.

Saville Ian Kushner

See also Agency; Case Study Research in Public Policy; Ethics; Governmentality; Power/Knowledge; Subject Rights

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PROGRAM-LOGIC MODEL

The program-logic model is a systematic approach depicting the steps involved in planning, executing, and evaluating a particular initiative or activity. It is an important organizing and evaluation tool that delineates the inputs and expected outcomes associated with the implementation of a particular program within institutional and community-based contexts. In essence, a program-logic model shows the key steps involved in running a program by linking a set of expected outcomes to activities that are theoretically derived or based on principles

grounded within an organization's mission or part of a broader change process.

Conceptual Overview and Discussion

From a theoretical standpoint, program-logic modeling has its roots in program theory. Len Bickman notes that program planning processes must have a sensible approach to demonstrating the key components of how a program is supposed to work. Moreover, an individual should be able to anticipate required activities and resources that can enhance the likelihood of a program's success. Accordingly, the program-logic model is closely associated with the field of program planning and evaluation.

A program-logic model begins with a clear idea for a program or initiative that has identifiable and measurable outcomes. For example, developing a community-based health service for at-risk youth can have the number of users or improved health among at-risk youth as two outcomes. The programlogic model will then outline the activities and resources required to meet the two outcomes. In some cases, a series of outcomes can be separated into individual groupings. For example, Bonita Reinert, Vivien Carver, Lilian Range and Lori Bobryckim separate the outcomes associated with an initiative to reduce tobacco use into initial, immediate, long-term, and impact outcomes. Their use of additional groupings demonstrates that behavioral change can be observed in disaggregated form.

Although the actual illustration of a program-logic model can appear to vary according to the case being represented, a review of different literatures reveals four common components to the development of any program-logic model: (1) resources, (2) activities, (3) outputs, and (4) outcomes. Some program-logic models use impact as a fifth component, but impact is more often associated with an outcome of a program. In effect, the four components can form the basis for different forms of case studies, such as single-case or embedded-case designs.

The program-logic model is a pictorial representation of the linkage of the four components. For instance, resources are found in the form of personnel or materials, whereas the activities are the actual usage of those resources. The outputs are

those associated with the individual activities and must reflect the linkage of the resources in the activities and how they tie into the outcomes. The outcomes are broader and are intended to be related to the goals established by a group or by single individuals. Each of the four components can be extended to be multilevel or multipurpose, such as resource type or longer or shorter term goals. Readers are encouraged to review the W. K. Kellogg Foundation's guide to developing a program-logic model for planning as well as for evaluation purposes. This guide provides a description of the latitude and flexibility associated with developing a program-logic model.

Application

From the perspective of case study research, the strength of using a program-logic model is that it can serve as an analytic or conceptual framework for the case. It can be used to develop a case study, because the information within each of the components can serve as the parameters with which one can investigate a particular social phenomenon. There are different ways in which the programlogic model can be used with case study research. From one perspective, a program-logic model serves as a tool with which researchers describe the logical relationships between the essential components of specific programs and the expected outcomes. For example, if there are resources associated with making a particular health intervention successful, a case study can focus attention on why those resources worked or whether there are alternatives that could be considered that could enhance success rates.

A program-logic model can serve as a spring-board for further investigation into the impact of one component of a program in relation to others. For example, if the outputs linked to particular resources appear to be counterintuitive, one could focus research attention on what makes those resources useful within the program's context. Further probing can lead researchers to rich conclusions that might be overlooked as anomalies as opposed to integral for a particular program. Furthermore, a program-logic model can also be used as a diagnostic tool to determine whether a case has captured the necessary information by reviewing whether the information

collected can lead to conclusions that reflect the different outcomes.

The program-logic model is also considered to be an important evaluation instrument for any organization trying to determine whether a particular program is meeting expectations. A program-logic model can complement existing organizational strategic planning when one is interested in assessing the appropriateness of the identified resources. The logic model can also be an important opportunity for organizations to begin reflecting on the challenges associated with a program. For instance, one can take an evaluation process further by involving a wider group of stakeholders in exploring the objectives and whether the resources are helping or hindering the program or organization.

Finally, there can be an important level of team building to ensure that a high level of stakeholder activity is part of the planning process when aiming to balance organizational outcomes with the needs and capacity of a program's recipients. For instance, a community-based program focusing on social determinants of health requires a set of parameters that outline what is required to effectively run a program as well as the necessary resources that could lead to social change. Lisa Minich, Steven Howe, Daniel Langmeyer, and Kevin Corcoran provide an account of challenges associated with using a program-logic model to account for community change. A key finding in this work is that the program-logic model can be used as a means to understanding a particular context or program rather than making a priori judgments about whether the outcomes were successfully achieved.

Critical Summary

There are many benefits to developing a programlogic model within the context of case study research. For instance, in a case study of an organizational setting a program-logic model can be used to systematically describe the relationship of key decisions to the management structure according to what resources were put into making the outcome of a decision work. However, although there are many identifiable benefits of using the program-logic model, researchers should use caution when relying on the model as a sole source of information regarding the effective running of a particular program. Developing a program-logic model requires a sophisticated ability to plan in a systematic way. The skills required to developing a program-logic model ensure that it is not the most accessible approach to planning; however, the process involved in developing a program-logic model can be as important and revealing as the model itself. For instance, one can begin to problematize objectives and outcomes while the planning process is occurring rather than conducting a post hoc analysis.

Although the information it yields can be potentially rich, the program-logic model still lacks the level of detail found within actual cases. The program-logic model is, in effect, a set of parameters that should be elaborated when investigating a particular program for evaluative purposes. The logic model is highly normative and does not always reveal the human complexity associated with effectively running programs. For instance, an important resource that is not always accounted for in most programs is the role of human capital found within volunteer activity. This capital is often intangible, thereby making it difficult to measure.

Jorge Sousa

See also Diagnostic Case Study Research; Outcome-Driven Research; Participatory Case Study; Pattern Matching; Problem Formulation; Program Evaluation and Case Study

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PROSPECTIVE CASE STUDY

Prospective case studies (PCSs) represent an alternative to traditional *post hoc* (or *retrospective*) case studies in deductive theory-testing. As opposed to the traditional, retrospective approach in case study development, the PCS design allows researchers to formulate a set of theory-based hypotheses in respect to the evolution of an ongoing social process and then to test these hypotheses at a predetermined follow-up time by comparing the hypotheses with the observed outcomes using pattern matching or a similar technique. PCSs thus can address some limitations of post hoc case study designs in deductive theory-testing.

Conceptual Overview and Discussion

Deductive Theory-Testing

Just as unexplained empirical observations create the need for inductive theory-building, the presence of multiple competing theories creates the need for deductive theory-testing using the methods dictated by the phenomenon being researched. Deductive theory-testing, however, is usually associated with quantitative research methods in social sciences. Nevertheless, because only a few elements of our social environment are amenable to quantification, the generalizability of our theories beyond the scarce quantifiable aspects of the social processes often remains unexplored. The use of qualitative research methods in deductive theory-testing, although less common, holds substantial promise, because it enables researchers to extend the deductive theorytesting approach to those aspects of social processes that are not amenable to quantification.

Limitations of Traditional (Post Hoc) Case Study Designs

The validity of post hoc case studies in theorytesting can be questioned on the grounds that the case study outcomes are already known to the researcher at the time of hypotheses formulation: The researcher formulates theory-based hypotheses already knowing which hypotheses are supported by the outcomes of the case study. Because theories in social sciences are not fully formalized, the process of hypotheses formulation is not free from the researcher's retrospective rationalization and selective biases. The researcher thus can be tempted to cherry-pick the cases that support a given theory or to select a theory that a particular case supports. Post hoc study designs may also conceal serious methodological flaws in sampling and data collection: Left-censoring or survivor bias in sampling, or attributional biases and post hoc rationalization in informants' responses present a common problem in post hoc studies. For these reasons, in medicine and other disciplines where the application of formal logical inference in hypothesis formulation is problematic but the need for rigor is high, the preference is given to prospective longitudinal study designs that require that hypotheses, follow-up times, and evaluation criteria be established in advance. PCS design thus can provide additional rigor to deductive theory-testing in case studies.

Application

The PCS design entails two major steps: (1) a base-line study and (2) a follow-up study.

1. Baseline Case Study

The critical objective of the first, baseline case study of a social process is to define how a given theory would interpret this process, what predictions it would make about its outcome, and why. This study is conducted to develop the following PCS design elements:

- Formulation of research question(s) and the selection of the theories to be tested
- Selection and justification of the study site/ context, where the competing theories can be tested, and selection of the data collection and analysis methods

- Analysis of the case and formulation of the patterns of testable hypotheses/predictions of the future outcomes that can be made using the theory subjected to testing (these specific, low-level hypotheses tie the theory to the case study and serve as predictions of the anticipated social process development that follow from this theory)
- Specification of the time period when the follow-up study should be conducted and description of its methodology
- Formulation of criteria for outcome evaluation in the follow-up study (e.g., What will be considered a "success" or a "failure"? What outcome(s) will be deemed to support a given theory?)

The baseline study in the PCS design is a critical part of formal data collection: It is focused on establishing connections between theories and the live social process that will be used as a test bed in this quasi-experimental PCS design. The primary concern at this stage of the PCS is establishing *construct validity*, ensuring that the formulated predictions indeed follow from the theories under investigation.

2. Follow-Up Study

The second, *follow-up* study involves research conducted in a predetermined period of time to evaluate the observed case outcomes versus the propositions/hypotheses formulated in the baseline study. The follow-up time at which this second study should be conducted is determined by the nature of the social process and by the theories under investigation. The criteria and methodology of the evaluation are established at the time of the baseline study. This way, the hypotheses formulation is completed and documented *before* the outcomes of the process are known to the researchers, and hence these outcomes cannot taint the researcher's case selection and choice of theories.

The evaluation of outcomes of the social process at the time of the follow-up study is performed using the *pattern matching* technique, in which the pattern of *expected* outcomes documented in the baseline study is compared with a set of outcomes *observed* at the time of the follow-up study. The

primary concern in the follow-up study is the *reliability* of two components in outcome evaluation: (1) the reliability of data collection and (2) the reliability of data interpretation.

The reliability of data collection in a PCS has to do primarily with determination of boundary conditions for a *sufficient match* between the hypothesis/ prediction and the pattern observed in the follow-up study data. In qualitative research, overwhelming evidence in favor of one hypothesis over another is rare. Although currently there is no precise way of setting strict criteria for interpreting findings in pattern matching, the researchers can use the principle of theoretical saturation as guidance. Theoretical saturation, which is commonly used in theorybuilding rather than theory-testing, represents the point at which additional data collection yields no further conceptual elaborations of a given theoretical element. In deductive theory-testing the point of theoretical saturation is achieved when the amount of available evidence becomes sufficient to develop the propositions of a given theory from scratch on the basis of available case study data. It should be noted, however, that theoretical saturation does not "prove" the theory but rather shows that a given theoretical element is applicable to the case and is not falsified by the case study data collected so far. Further researcher efforts then should be directed at the search for evidence that can falsify, rather than support, this theoretical proposition.

It is recommended that empirical investigation of a pattern match continue until one of the following happens:

- Some newly uncovered evidence provides an overwhelming support for a decision to accept/ reject the hypothesis
- 2. No more empirical data are available
- 3. Further investigation becomes impractical because additional data collection yields the same mixed support for the hypothesis in question

The situations described in Items 2 and 3 would suggest that the case study findings for such hypotheses are inconclusive (similarly, statistically insignificant differences in quantitative studies are deemed inconclusive).

The reliability of data interpretation calls for special attention to *selective bias* outcomes in data interpretation. Such bias may affect which data

elements the researcher sees in a given case and which ones remain unnoticed or ignored. Hypothesis blinding and competitive case analysis techniques can be used to address this potential bias in the follow-up study. In hypothesis blinding a blinded evaluation of the outcome can be achieved by presenting researchers conducting evaluations with specific low-level hypotheses without disclosing which theory this hypothesis is intended to support. Competitive case analysis can help address the "find what you look for" bias through replication of the competition between different scientific theories by a competition within the research team: The alternative theories that the study seeks to evaluate can be assigned to different researchers, whose role on the team is to look for the data supporting the theory assigned to them and to defend it in competition against the theories assigned to others.

Critical Summary

Although PCSs can improve rigor of deductive theory-testing without the sacrifice in richness of qualitative data, this net gain in rigor still comes at some cost: a cost to the researcher. Prospective research is associated with substantial time spans: Sometimes years separate the baseline study from the follow-up evaluation. Given the need to ensure continuity of the research project over an extended time period, a team-based approach to conducting PCSs is recommended.

Alex Bitektine

See also Falsification; Pattern Matching; Quasi-Experimental Design; Single-Case Designs; Theory-Testing With Cases

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QUALITATIVE ANALYSIS IN CASE STUDY

Case study research produces vast amounts of data. This implies that qualitative data analysis of case studies is complex and requires flexibility, experience, and skill. This entry applies the concept of *triangulation*—conventionally defined as the application of multiple methods in one study—to qualitative data analysis in order to strengthen the depth and breadth of case study findings.

Conceptual Overview and Discussion

In qualitative research, data can come from many different sources, such as observational field notes, interview transcripts, written documents of all sorts, research diaries, photographs, videos, and material objects. These raw data comprise large quantities of textual, visual, and audio files. To enable the researcher to present the findings and answer the research questions, these data need to be systematically dissected, rearranged, organized, and interpreted. Data analysis, then, consists of reduction and reconstruction in a continuous, ongoing process. In qualitative case studies the interest is intrinsic: The researcher is aiming to understand what is important in a case from within, as opposed to from the perspective of outsiders, such as fellow researchers.

The major strength of the case study design is the opportunity to use many different sources of evidence. This use of multiple methods is conventionally defined as *triangulation*. In our view, triangulation is a useful concept not only for data collection but also for data analysis. Before presenting the characteristics of various strategies for qualitative data analysis within case studies, this entry discusses the idea of multiple triangulation within a case study.

Multiple Triangulation

By combining methods in the same study a researcher can partially overcome or counterbalance the deficiencies and biases that flow from single methodologies. Robert Yin claims that the most important advantage presented by using multiple sources of evidence is the development of converging lines of inquiry. Any conclusion in a case study is likely to be more convincing if it is based on several different sources of information.

Norman Denzin, in his 1989 book, distinguishes four types of triangulation, an approach he termed *multiple triangulation*: (1) data triangulation, (2) investigator triangulation, (3) theory triangulation, and (4) method triangulation. Judith Kimchi, Barbara Polivka, and Joanne S. Stephenson add a fifth type: analysis triangulation, and Matthew Miles and Michael Huberman made a further distinction between data *source* triangulation and data *type* triangulation. The following list provides more detail on all types of triangulation.

• Data source triangulation: Data are gathered through several sampling strategies, at different moments in time, in different social situations (space), and with a variety of persons.

- *Investigator triangulation:* More than one researcher is involved in a research project.
- *Theory triangulation:* More than one theoretical position is used to collect and interpret data.
- Methodological triangulation: More than one method is used to gather data (e.g., interviewing, participant observation filming).
- *Data type triangulation:* Several types of data are used to understand the case or cases at hand. These can include interview transcripts, visual data, and official statistics and are a result of the triangulation of methods.
- Analysis triangulation: Several separate analytic techniques are used to validate meaning in the data set. Analysis triangulation can also involve multiple units and levels of analysis (e.g., individuals, families, settings). The combination of analytic techniques enhances the breadth and depth of what researchers see in their data.

Multiple triangulation is a way to confirm the breadth and accuracy of the data set and its interpretation. It may be conceptualized as a means of achieving convergent validity, as Yin did. However, confirmation is not always, or necessarily, the outcome of triangulation. When one is studying complex social phenomena, multiple strategies combined may address unique angles or contribute different viewpoints. Therefore, triangulation cannot increase validity in the sense of pursuing objective truth; instead, it adds to the investigator's depth and breadth of understanding of a phenomenon, as Denzin shows in citing data from Fielding and Fielding's 1986 publication. Triangulation is thus seen as a means of enhancing the completeness of the findings, rendering a more in-depth understanding.

The term *triangulation* therefore is linked to two distinct purposes, both relevant to case study research: (1) the construction of (more) valid interpretations by convergence of evidence and (2) the achievement of a deeper insight by combining methods, data, and analysis techniques.

This entry demonstrates the value of using multiple analytic techniques on the same data set within one case study. It does so by applying some techniques to a fictive case study among HIV-positive (HIV+) Jamaicans. First, the basic characteristics, assumptions, and traditions in qualitative data analysis are discussed.

Bookkeepers, Alchemists, and Artists

Data analysis is an active process; it involves work—a lot of work, in fact. One should not underestimate the amount of time needed for analysis. Extensive analysis is a labor-intensive endeavor. Analysis involves working with the data: organizing and dissecting them into smaller units, coding and synthesizing them, and searching for patterns. In the interpretation of the data ideas are explained in relation to theory and action.

Seeing analysis as work implies that it is possible to plan and structure; to divide tasks; and to use tools, such as computer programs, that assist in organizing and retrieving the data. As in other academic work, data analysis requires both skills and creativity. Jane Coffey and Paul Atkinson distinguish two basic views related to qualitative analysis: (1) the *procedural view*, which emphasizes procedures and processes of coding, sorting, indexing, and categorizing, and (2) the *creative view*, which emphasizes interpretation and exploration of relations (variability) within the data.

These views relate to different aspects of the analytic process. In a paraphrase of Helen Marshall's typology, researchers primarily concerned with the procedural aspects of analysis (the bookkeepers) differ from those concerned with the creative aspects (the *alchemists*) in their appreciation of either precision and reliability or black box creativity. A third way, which combines both views, is not only feasible but also very useful. Seeing the researcher as an artist implies that he or she is undertaking data analysis as an artistic enterprise, combining the transparency and rigor of the bookkeeper with the out-of-the-box thinking of the alchemist. In any case, qualitative data analysis is not aimed at producing numbers or magic; however, if performed in a systematic and creative way it does produce new, reliable, and in-depth knowledge.

Characteristics of Qualitative Data Analysis

Most researchers will agree that extensive data analysis is a time-consuming, continuous process that requires both skills and creative thinking. Divergence arises when discussing the central activity of analyzing the data themselves. How do researchers go about the analytic process? Where and when do they start? Qualitative data analysis generally involves an iterative, spiraling, or cyclical

process that proceeds from more general to more specific observations. Data already gathered are analyzed in order to shape the ongoing data collection. *Continuous analysis* has the advantage of allowing the researcher to go back to the field and refine questions, develop hypotheses, and pursue new areas of inquiry in further depth. To case study researchers coming from a quantitative tradition, however, such flexibility and the adjustment of research questions en route seriously threaten replicability or generalizability of the findings.

Another point of heated debate is the starting point for the construction of analytical categories: Should researchers start from theory and their own a priori ideas, or do these categories and analytical concepts emerge from the data? Approaching the data and deriving categories can be done *inductively*—that is, obtained gradually from the data—or *deductively*, either at the beginning or partway through the analysis.

We argue that it is best to perceive data analysis as an enterprise that is never entirely inductive or deductive in nature but rather a combination of both. The need to organize in a systematic way the unstructured raw data or various kinds of data calls for a combination of *structure* (built by theoretical notions and frameworks constructed in a deductive way) with *flexibility* (exploring the data with an open mind, i.e., induction).

Adapting a list of common characteristics of qualitative data analysis that, according to Coffey and Atkinson, originally were proposed by Renate Tesch, one can think of qualitative data analysis as a continuous, time-consuming, and labor-intensive process:

- It requires reflexivity and combining skill with art.
- It should be extensive and systematic, but not rigid.
- It is usually a combination of both inductive and deductive strategies.
- It is both a data-geared and theory-driven activity.

Three Traditions in Qualitative Case Study Analysis

With regard to qualitative analysis in case study research, Peter Swanborn distinguishes three traditions that dominate the scene: (1) the Yin tradition; (2) the Miles and Huberman tradition; and (3) the qualitative, interpretative tradition.

Data Analysis According to Yin

Yin claims the analysis of case studies to be one of the least developed and most difficult aspects of this type of research. What is needed most is a general *analytic strategy*. He distinguishes three basic types of analysis for case studies:

- analysis based on theoretical propositions,
- analysis that requires thinking about rival explanations, and
- analysis based on case descriptions and descriptive frameworks.

Yin stands firmly in the empirical-analytical tradition, with a strong emphasis on testing hypotheses. He prefers constructing theoretical propositions and testing them in the analysis and deems as least favorable considering the development of a descriptive framework. According to Yin, theoretical propositions about causal relations ("how" and "why" questions) help to organize the entire case study, focusing attention on certain data and ignoring other data. A more inductive approach merely serves as an alternative when a researcher is having difficulty making the other approaches work. However, when it comes to the explanation of actual analyzing techniques he is remarkably vague. He mentions three specific analytic techniques: (1) pattern matching, (2) explanation-building, and (3) time series analysis. In pattern matching, the researcher compares an empirically based pattern with a predicted pattern based on theoretical propositions. In this view, data analysis is reduced to testing hypotheses generated before data collection—which is typical of the hypotheticodeductive approach. The second technique, explanation-building (i.e., the search for rival explanations), allows more "playing with the data" and is therefore typically used for explanatory studies. Building an explanation or argument about the case is often done in narrative form, which Yin sees as a problem. The third analytic technique, time series analysis, is analogous to the time series analysis conducted in experiments, revealing again Yin's origins from a quantitative research tradition.

The Miles and Huberman Tradition

For the analysis of qualitative data in case studies the work of Miles and Huberman has been quite influential. Their basic analytic strategy entails the use of matrixes, charts, and other forms of graphic representation. Instead of filling these with numbers, as a quantitative researcher would do, a qualitative data matrix contains text fragments, key words, or full quotations. Analysis consists of filling in charts and summarizing their content. In the charts, types of respondents, critical incidents, and cases are crossed with relevant variables, time, or events. Another analytic technique used by Miles and Huberman is the construction of network drawings, flow charts, decision charts, and so on. The core of qualitative analysis in this tradition is the reduction of qualitative data in visual representations. Graphic representations, such as tables and networks, can be very useful tools in analysis, but to some researchers qualitative analysis is more than drawing matrixes and charts.

The Qualitative, Interpretative Tradition

Qualitative research comprises many different approaches. With respect to analysis, the grounded theory approach has been most influential and widely used, though not always in the way as originally intended by Barney Glaser and Anselm Strauss. Strauss and Juliet Corbin developed a somewhat different working method from the one that Glaser proposes; however, central to the grounded theory approach is a strong accent on the inductive-analytic process of identifying categories and core concepts as they emerge from the data by using a constant comparison technique. As suggested in the term grounded theory, the aim of this approach is to develop hypotheses and theory from the "ground" upward rather than defining them a priori from theoretical notions downward, as is the case in deductive analysis. In interpretative qualitative analysis an essential element is the coding of the data, that is, the labeling of text fragments. In the grounded theory approach coding is used in a very specific way, with an inductive stage of open coding that is followed by selective and axial coding, reflecting an ongoing process of interpretation and building of theory.

Quality of Data Analysis

In our view, good qualitative analysis approaches the essence of a phenomenon by systematically and carefully gathering and interpreting data. In contrast, according to Fielding, poor qualitative analysis is anecdotal and unreflective, and it lacks a coherent line of inquiry. Several authors have written on quality issues in qualitative research; for instance, Ilja Maso and Adri Smaling and Catherine Pope and Nicholas Mays inspired the development of the next list for enhancement of the analysis. The quality of analysis may be improved in several ways:

- Careful interpretation of the data
- Triangulation of analytic techniques
- Keeping record of important choices and operational procedures by writing memos
- Investigator triangulation, that is, having more than one researcher analyze the data
- Doing a member check in which preliminary findings are discussed with respondents
- Searching for deviant cases and alternative explanations

Several software packages designed for qualitative data analysis enable complex organization and retrieval of data. Widely used are ATLAS-ti, NVIVO, and MAXQDA 2007. These software packages enable researchers to work and rework the data without losing their original context, to code and retrieve data, and to document memos. These computer programs are useful for categorizing, displaying, and rearranging many types of data (written documents, interview transcripts, and even video and photographs). However, the researcher's analytical skill in making sense of the data and in defining an appropriate structure for the analysis cannot be replaced by software. Having said that, software is no shortcut to rigorous and systematic analysis, although it does extend the scope and possibilities of qualitative analysis. The network view tool in ATLAS-ti, for instance, enables the researcher to link a theoretical model to instances found in the empirical data.

Application

A Fictive Case Study: HIV+ Persons in Jamaica

This section discusses a fictive qualitative case study on stigmatization processes regarding HIV/AIDS in Jamaica. We are particularly interested in stigmatization of persons being diagnosed with HIV who have developed AIDS. Our research questions deal with the experiences of HIV+Jamaicans relating to stigma: How do they anticipate expected stigmatization, and how does stigmatization influence social interaction with their surroundings and how they cope?

Our research design would encompass multiple triangulation strategies.

First, we would want to apply data source triangulation by selecting different types of persons in our case study. Apart from several HIV+ persons and several persons diagnosed with AIDS, we would want to gain access to several types of persons from their social network (e.g., family members, friends, neighbors, and colleagues). Also, we would like to include some members of the medical and caretaking system (e.g., doctors, nurses, and friends who help with healthcare tasks). Finally, we might include persons from the general public to evaluate their perspectives on persons with HIV or AIDS.

Second, we would want to utilize different methods, resulting in data type triangulation. Participant observation would certainly be suitable for our research question by helping us gain access to the daily life experiences of stigma. Perhaps we could to use a digital camera to either take film or photographs, for example, filming situations in the public domain (e.g. persons taking the bus, entering the hospital for treatment, etc.). These visual data could be analyzed in their own right and be used as elicitation material during interviews. Besides, we would continuously write field notes as described by Robert Emerson, Rachel Fretz, and Linda Shaw. Semistructured or open interviews with all the actors just described would also be an important method in our case study. We would use specific elicitation techniques as mentioned in Evers to gain extra information; for example, we would ask the persons with HIV to draw a map of their social network and use this to elaborate on the level of intimacy with each contact and whether they had disclosed their HIV status to this contact. Newspaper clippings, TV and radio shows, and policy documents could help us form an idea of popular and official discourse on HIV/AIDS in Jamaica.

Analysis of these various types of data should be varied and rich as well. We next describe a possible triangulation of analytic techniques, using data from our Jamaican colleague Robert Carr, who was very friendly in sharing some of his interview transcripts with us.

Thick Analysis of a Fictive Case Study

The first step in our analysis would be to familiarize ourselves with the data, immersing ourselves in the raw data by listening to tapes, reading transcripts, studying notes, visual data, and so on, in order to list key ideas and recurrent themes, which will be documented in memos.

The next step in the analysis would be to break down the data into manageable units. *Open* and *thematic coding* as described, for instance, by Amanda Coffey and Paul Atkinson, are the usual procedures to achieve this. For thematic coding we use codes by drawing on a priori issues from our research questions and conceptual model, which entails three main themes: (1) social categorizations of HIV/AIDS in general and in Jamaica, (2) stigmatization processes, and (3) coping with illness in general and HIV/AIDS in particular. Open coding consists of codes developed on the spot while reading the data (see Figure 1).

Codes should be supported by short descriptions of their meaning. Single passages of text can often encompass a large number of different codes. Definitions may be based on theoretical knowledge, explanations of the research subjects, or points of interest for the researcher.

After coding, text passages with the same codes are retrieved and compared for similarities or variations. Codes may be merged into broader themes or split up into subcodes. The relationship between codes and broader themes also is explored. This process involves a considerable amount of abstraction and synthesis; therefore, the use of various analytic techniques, such as charting and drawing network views, is helpful to visualize relations between codes or concepts, which may lead to theory. For example, we might have formulated a priori theoretical

Open Codes

OC Anticipating anticipated stigmatization

OC Background/situation subject

OC Coping skill toward illness

OC Coping skill: helping others deal with illness

OC Diagnosis

OC Expecting stigmatizing behavior

OC Feelings of children on public appearance

OC Reaction to diagnosis

OC Stigmatizing behavior: perceptions

OC Subject explaining behavior to others

OC With whom is diagnosis shared

Thematic Codes

TC Coping skill: toward others TC Coping skill: toward self

TC Positive behavior

TC Stigmatizing behavior: actions

TC Stigmatizing behavior: body language

TC Stigmatizing behavior: words

Figure I Some examples of open codes (OC) and thematic codes (TC)

propositions concerning the relationship between social distance and the framing of persons with HIV and put these to the test in the data. A useful tool for such analysis could be the construction of a data matrix as proposed by Miles and Huberman or Swanborn. Figure 2 presents several quotes from the same individual (S2), showing the richness and diversity of qualitative data.

Another way of dealing with theoretical assumptions surrounding behavior toward HIV+ people could be the drawing of a *network view* (see Figure 3).

This model could be tested against the empirical data, to see whether it holds true in reality. Some of the quotes in Figure 2 already indicate that our model would need adjustment. Our model suggests that the perception of HIV is linked with social distance: People who are closer to the HIV+ person will be supportive or neutral about the illness. The quotes taken from the interviews indicate otherwise. In the row labeled *Neutral*, Subject 2 (Alice) talks about her mother-in-law and indicates that the relationship is not very supportive. In our model this would probably end up between being both neutral and negative.

To enhance our understanding of the phenomena under study, more analytic techniques are available that help to interpret the range and nature of phenomena, create typologies, and find associations between themes. *Content analysis* (sometimes called *textual analysis*) is useful for studying the content of communication because it

entails systematic coding and categorizing to explore large amounts of textual data. In looking for frequencies, words used and relations among utterances, structures, and discourses of communication can be found. After exploring a large sample of local newspapers for frequencies of words relating to HIV, we could develop a coding protocol of thematic codes to analyze TV and radio shows. We might find, for instance, that HIV is represented in the media as an illness of the poor, while the exact prevalence in Jamaica is kept quiet.

Another analytic technique we propose to apply is a *metaphor analysis*. This technique encompasses the search for words that are used in a metaphoric sense (i.e., not in their normal, literal intent). The analysis of metaphors, according to Rudolf Schmitt, consists of looking at the types of metaphors used and the search for clusters that form a structure or model. We might find that people use animal metaphors for HIV+ persons, linking them to the animal world rather than perceiving them as human beings. This would be indicative of stigmatization processes.

Frame analysis is another analytic technique one might consider for these data. Frame analysis aims to identify the major cognitive schemata through which people interpret the world and communicate about it. For our frame analysis, we would systematically search the perceptions on "the other," as did Ineke Graumans and Harry van den Berg in their case study of interethnic relations in a primary school. We would focus on signs

Social distance Frame perception	Close (family member in 1st or 2nd degree, lover, best friends)	In between (acquaintance, neighbor, colleague)	Distant (people in the street, strangers)
Positive	S2: Interviewer: But you seem as if you two have a good relationship, you and the father Alice: Yes! Last time he came he came in June and we talk.		
Neutral		S2: Interviewer: What about the children's grandmother do you guys get along? Alice: (cautiously) Yes; but I think they're not strong enough to take that care that they need. [Observational comment: I realize Alice is really avoiding painful memories of family conflict.]	
Negative	S2: Interviewer: So what are your relationships like with your children and your family and so on? Do your children come and see you? Alice: No since I'm here they haven't been here.	S2: Alice: I depend on God, and pray to God, and that's how I cope. You know, when you found out that you're positive Before you were positive, you had a lot of friends and people around you, and when you found out that you're positive and they know everybody is gone from you.	S2: Alice: They say bad things. Interviewer: Like what? (Alice is silent.) I know it's painful, I know it could be big Alice: They would say "dutty AIDS gal" Interviewer: Are they afraid of AIDS people? Alice: Even where I was living the people, the tenant in the yard, they don't have nice things to say most of the time, 'cause hanging the clothes on the line, they don't want to touch them, they don't want the water of the clothes to drop on them, they don't want to have anything to do with anything that belongs to me. And then they will tell my children bad things.

Figure 2 Matrix regarding different actors and their perceptions of HIV/AIDS

indicating how HIV+ persons are perceived at various levels. A frame could connect persons with HIV to being extremely poor (which never applies to the respondents, no matter how poor they are) and being filthy and immoral (engaged in improper sexual behavior). Various frames could be related to the type of actors who favor the use of them.

Another useful analytic technique involves building a *typology* of the different ways persons with HIV cope with their illness. Besides the expected general denial and acceptance coping strategies, we could find that some people adapt a public denial coping strategy in order to protect their loved ones while accepting the illness for

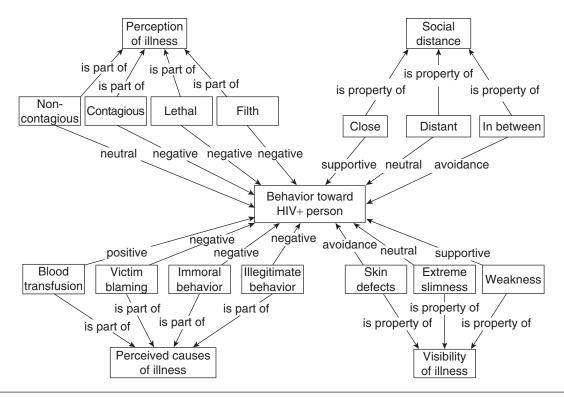


Figure 3 Network view on stigmatization and factors of influence in fictive case study of HIV-positive people in Jamaica

themselves. Another coping strategy might be becoming an HIV activist.

Ethnographic case descriptions resulting in "thick description" help to draw vivid pictures of various aspects of the lives of people with HIV in Jamaica, for example, how they are treated in various settings, how their life histories evolved.

By combining various types of analysis researchers gain a more in-depth and more valid understanding of the complexities of the social phenomena under study.

Critical Summary

Qualitative data analysis is not quick and easy. Because case study research yields vast amounts of data from various sources, data analysis deserves special attention. The aim of qualitative analysis is to synthesize data so that one can search for patterns by using analytical categories to describe and explain social phenomena. This is done by reducing, rearranging, and interpreting the raw data. For the analysis of qualitative case studies, we recommend the application of various analytic

techniques (analysis triangulation). Researchers, though, should not use techniques at random but instead should choose an analytical strategy that fits their data. The choice of analytic techniques will be largely determined by the nature and content of the data, the quality of existing theories, the analytic skill of the researcher, and, last but not least, on the time available. "Thick analysis" is a way to increase the validity, comprehend the complexity, and enhance the richness and in-depth understanding of the phenomena under study.

Jeanine C. Evers and AnneLoes van Staa

See also Analysis of Visual Data; Audiovisual Recording; Bricoleur; Complexity; Computer-Based Analysis of Qualitative Data: ATLAS/ti; Computer-Based Analysis of Qualitative Data: MAXQDA 2007; Computer-Based Analysis of Qualitative Data: NVIVO; Content Analysis; Critical Discourse Analysis; Discourse Analysis; Document Analysis; Field Notes; Frame Analysis; Inductivism; Interviews; Metaphor; Narrative Analysis; Network Analysis; Participant Observation; Pattern Matching; Textual Analysis; Thematic Analysis; Thick Description; Triangulation

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QUALITATIVE COMPARATIVE ANALYSIS

Qualitative comparative analysis (QCA) is an analytic technique grounded in set theory that allows for a detailed analysis of how causal conditions contribute to an outcome in question. It is particularly suitable for analyzing situations of causal complexity, that is, situations in which an outcome may result from several different combinations of causal conditions. QCA uses Boolean algebra to formalize the logic of qualitative analysis and make it applicable to situations in which the researcher aims to make comparisons across more than a handful of cases.

Conceptual Overview and Discussion

QCA was initially developed by Charles Ragin as a comparative method to overcome the methodological divide between case-oriented, qualitative, small-N studies that focus on within-case analysis on the one hand and variable-oriented, quantitative, large-N studies that focus on cross-case analysis on the other. As a comparative method it offers a systematic approach to comparing configurations of causes across a larger number of cases than can usually be accommodated within the classic case study approach, where qualitative analysis quickly exhausts the levels of complexity in patterns it can process. QCA thus aims to provide a middle path between qualitative and quantitative methods that overcomes some of the limitations of conventional qualitative and quantitative research by redirecting the analysis toward set-theoretic relationships. As such, QCA differs from conventional, variable-based approaches that focus on correlational analysis because OCA does not disaggregate cases into independent, analytically separate aspects but instead treats configurations as different types of cases and conceptualizes the relationships between causal conditions and outcomes as set-subset relationships.

To examine how different configurations of attributes contribute to an outcome of interest, QCA uses Boolean algebra, a notational system that permits the algebraic manipulation of logical statements and treats cases as having membership in sets. This allows for a sophisticated assessment of how different causes contribute to an outcome of interest without having to rely on correlational methods. Furthermore, by conceptualizing the relationship between causal conditions and an outcome in terms of set-subset relationships, OCA allows for the analysis of causal necessity and sufficiency in achieving an outcome. Because QCA uses a language that is half verbal-conceptual and half mathematical-logical, it offers the researcher a rigorous way for combining verbal statements with logical relationships to express the relationship between causes and outcomes. In doing so, QCA differs from conventional correlational analysis by explicitly shifting the focus away from the unique contribution of a single cause while holding all other factors constant. Instead of this focus on net effects, QCA emphasizes the importance of understanding how several causes combine rather than compete to achieve an outcome, with the assumption that complex, conjunctive causality will usually be the norm rather than the exception and that causes have to be understood in context for the researcher to understand their contribution to the outcome. In this regard, QCA allows for the expression of complex causal relations in ways that can provide new insights into the relationships in question. In fact, a common finding of a configurational analysis using QCA may be that individual causes are neither necessary nor sufficient to bring about an outcome, but combinations of causes may be jointly sufficient to produce an outcome of interest.

To analyze causal relationships, QCA employs the use of data matrixes known as *truth tables*. Such tables provide an overview of the conceptual property space by listing all hypothetical combinations of characteristics in a table that has 2^k rows, where k is the number of causal conditions examined. In a first step, this table allows the researcher to examine the distribution of cases across this property space, which will usually be characterized by what is known as *limited diversity*—that is, not

all theoretically possible configurations will also have empirical instances, and not all of these empirical instances exhibit the outcome in question. In a second step, the researcher can then use algorithms such as the Quine-McCluskey algorithm to reduce the combinations of the property space to more concise statements as to what combinations of attributes lead to the observation of the outcome. In its logic, this approach is based on the method of difference and the method of agreement outlined by John Stuart Mill, whereby the researcher is concerned with instances of the cause and outcome to understand patterns of causation. However, in QCA the analysis relies on algorithms embedded in software packages such as Fuzzy Set/ Qualitative Comparative Analysis, developed by Charles Ragin, Kriss Drass, and Sean Davey.

In terms of its measurement, QCA was initially developed for the analysis of crisp sets, that is, dichotomous sets coded either 1 or 0 for "fully in the set" or "fully out of the set." Because this considerably limited the applicability of QCA to more finely grained phenomena, Ragin developed fuzzy set QCA. By implementing the use of fuzzy sets that can range from graded membership categories to fully continuous fuzzy sets similar to metric variables, QCA has become considerably more flexible and allows for a more finely grained analysis of causal relationships. At the same time, QCA places greater demands on the researcher in terms of calibrating the fuzzy set measures. These greater demands stem from the need to identify meaningful thresholds for set membership values when calibrating the measures, such as thresholds regarding when a case has full membership in a set and when a case is fully out of the set. Although calibration challenges the researcher to be explicit about what a given value of a measure means substantively for a concept of interest, as an approach it will usually be superior to the use of uncalibrated measures whose results are highly sample dependent rather than theory driven.

Application

QCA was initially developed for the analysis of small-*N* situations (e.g., between 15 and 40 cases) where the complexity of comparing a number of causal conditions across these cases called for a formal method of analysis but where there were

either too few cases to engage in conventional statistical analyses or the researcher aimed to avoid a correlational approach that focused on net effects of individual measures. In this capacity, QCA proved to be particularly useful for sociologists and political scientists interested in understanding a limited number of large-scale, complex phenomena such as the occurrence of regime change, the emergence of working class movements, or ethnic mobilization. In such situations the ability of QCA to combine in-depth knowledge about a number of cases with a formal approach to understanding the diversity of causes across these cases provides the researcher with a useful tool for understanding complex causal relationships.

More recently, QCA has been increasingly extended from small-N to large-N research situations. For instance, Charles Ragin and Peer Fiss use fuzzy set QCA to examine the causal configurations that allow individuals to avoid poverty, whereas Thomas Greckhamer, Vilmos Misangyi, Heather Elms, and Rodney Lacey use a QCA approach to examine how firm, corporate, and industry effects contribute to performance. These applications show that a configurational analysis can also be employed in the kinds of research settings that usually use standard statistical tools such as regression analysis. In addition, QCA is extending beyond the domains of sociology and political science to the field of management and strategy research, where configurational thinking is arguably widespread, offering considerable opportunities to apply set-theoretic methods such as QCA as demonstrated by Peer Fiss. However, when focusing on large-N settings the analysis necessarily relies less on in-depth knowledge about individual cases and more on detecting configurational patterns that consistently hold across significant numbers of cases.

As a methodology, QCA is particularly useful for the analysis of situations of *equifinality*, or situations in which there are different but equally viable paths to an outcome. This notion that two or more configurations can be equally effective in achieving an outcome frequently presents a methodological challenge for conventional methods, such as multivariate regression analysis, that estimate a single path for all cases under examination. The result of this challenge has been that equifinality has remained an underdeveloped

construct in much of social science research. QCA is better suited to analyzing situations of equifinality because it allows the researcher to examine extensive numbers of different combinations of elements and detect the underlying commonalities of configurations that lead to a certain outcome, allowing the researcher to engage in a detailed assessment of causality for each path. In addition, QCA provides a measure of the relative importance of each path, which Ragin refers to as coverage, or the proportion of instances of the outcome that are associated with a specific causal combination or path.

The ability of QCA to allow for the analysis of complex causal relationships does not come without costs, though. In particular, because the data matrixes used in a QCA analysis are based on all possible configurations, the number of these configurations rises exponentially with the number of causal conditions analyzed. As a result, even relatively few elements can lead to an astronomically large number of different possible complex configurations, and there will frequently be very few or no empirical instances of any particular configuration. The number of causal conditions that can empirically be analyzed for any given setting will thus be limited by the number of cases available, much like a conventional statistical analysis requires a sufficient number of degrees of freedom.

Critical Summary

QCA and fuzzy set QCA offer researchers useful tools for studying situations in which causal relations are complex and there are several causal paths to an outcome of interest. However, although the number of empirical applications of QCA is growing, the technique has so far not achieved widespread use. Furthermore, because QCA is a relatively young analysis tool it has not yet achieved full maturity, and the last few years have seen major changes in the estimation approaches and algorithms employed. Nevertheless, QCA in its current form can be applied to a wide range of research situations, including both small-N and large-N situations, and will be most beneficial when the research setting is marked by a configurational logic and considerable causal complexity.

See also Bayesian Inference and Boolean Logic; Comparative Case Study; Cross-Case Synthesis and Analysis; Equifinality; Method of Agreement; Method of Difference; Multiple-Case Designs; Qualitative Analysis in Case Study; Quantitative Analysis in Case Study

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QUANTITATIVE ANALYSIS IN CASE STUDY

Case studies using quantitative analysis contain elements of the empirical—analytical scientific approach. These are often considered as opposing the dominant qualitative approach of case study research. The use of quantitative analysis in case studies may depend, among other things, on the phenomena under study, the research questions formulated, the type of case study, and the sources of evidence used. For case study research, quantitative analysis can be used either on its own or to complement qualitative analysis.

Conceptual Overview and Discussion

In the social sciences there is a rather firm differentiation between *qualitative* and *quantitative* research. Each approach has its advocates and opponents, and usually a number of characteristics are used by each to substantiate one's point of view. For example, in regard to the way to collect knowledge about the social reality (the epistemological view in research), qualitative research often proposes an interpretative view. In short, this means that researchers have to imagine themselves as part of the object of research (e.g., employees) and have to understand and interpret the behavior in the context (e.g., organizational change and feelings of stress). In contrast, the epistemological view in quantitative research is essentially empirical-analytic. This means that knowledge has to be based on observation through sensory perception, and scientific research methods guarantee that systematical observations result in scientific theories and general laws. To take another stance, the line of reasoning to acquire knowledge can be, in qualitative research, generally inductive. This means that on the basis of collected empirical data (e.g., various observations of employees during a process of organizational change) a broader theory is derived (e.g., organizational change leads to feelings of stress among employees). In contrast, quantitative research is mainly based on deductive reasoning. Here, research starts from generally formulated laws or derived hypotheses that are subsequently empirically tested. In the same vein, other characteristics of qualitative and quantitative research are discussed in various methodological handbooks; however, these differentiations are, in practical research, not always clearly discernible. Even the boundaries of what the researchers who conducted the inquiry themselves call case studies is not fixed but rather permeable. The following example illustrates this. Suppose that over the course of 3 years a research project has examined the educational effects, in terms of acquired study attitude and study behavior, of a revised bachelor's degree curriculum, using a pretest and posttest design in a restricted group of students in one university. Such a study can be labeled as an experiment, when referring to the research strategy; as a case study, when focusing on the educational situation of a restricted sample of students; or as a longitudinal study, by concentrating on tracking the same group of students during a certain time span. It could even be that the label *case study* is chosen to soften possibly disappointing results, implying that outcomes could have been better in other instances. This shows that there may be confusion about the terminology used to characterize a study, such as aspects of demarcating the situation of research, the research strategy, types of evidence, and various data collection methods. Researchers are well advised to give arguments and report why a specific label has been chosen. Nevertheless, when labeled as a *case study* the evidence in the example just given basically is quantitative. The evidence in case studies thus can be based on either a qualitative or a quantitative approach, or on combinations of both methodologies. Among other things, this may depend on the phenomena under study, the research questions formulated, the type of case study, or the sources of evidence used. This entry considers characteristics of quantitative analysis to see how they might provide a way to perform data analysis in case studies that is complementary to mainstream qualitative analysis.

Case Selection and Sampling

In quantitative analysis researchers ideally strive for samples that are statistically generalizable to or representative of the population regarding a number of characteristics, such as distribution of sex, income and age groups, and so on. To achieve a representative sample, units are drawn randomly from a larger population by some form of probability or random sampling. The sample is considered random when the chance of being chosen is equal (and known) for every unit of the population. This requires a sampling frame, a numbered list of all units in the population—for example, records of all employees working for an organization. The simplest form of random sampling, a simple random sample, can by achieved by means of tables of random numbers or by using computergenerated random numbers. To make sampling more efficient, variants of simple random sampling are used in quantitative analysis, for example, stratified random sampling, cluster sampling, and systematic random sampling.

In case study research the ideal is to realize not statistical generalization but *analytical generalization*, to be able to generalize results to a

broader theory. Case selection is focused on achieving a reflection of the diversity of the phenomena in a population. Robert Yin discusses a number of rationales for case selection. A case may be a critical case to test a theory, an extreme or unique case that is so exceptional that it is worth studying, a typical case that captures characteristics of everyday situations, a revelatory case unfolding phenomena that were previously inaccessible for researchers, and a longitudinal case following a single case in more points in time. By means of all differentiated rationales for case selection a form of purposive or strategic sampling is achieved because researchers deliberately include characteristics of the case into account. So, in case study research, whether a single case is studied or multiple cases are studied, case selection will generally not use sampling procedures derived from quantitative analysis but will instead use a form of purposive sampling. It is necessary here to point to the so-called *embed*ded case studies that Yin differentiates. An embedded case study involves more than one unit of analysis; that is, subunits are considered, and as a result analyses may take places at different levels. Consider, for example, a case study of a single company, a software producer. When there are no clear substantial reasons for selection of subunits the researcher may let chance decide which subunits are chosen. In this case, a probability sample may then result in the selection of various departments within the company (e.g., software production, marketing, and human resources). If this example were extended to an embedded multiple-case study design—including, say, three more software producers—it is conceivable that, in order to make similar comparisons across companies, the selection of the embedded units of the three additional companies is purposive, taking into account departments similar to those in the first company. Depending on the purpose and research questions of the inquiry, embedded case study units can be selected through purposive sampling, probability sampling, and combinations of these methods.

Sources of Evidence

One of the characteristics of case studies is that multiple, not just single, sources of evidence are used. This is in contrast to experimental and survey research, in which one data source dominates (i.e., observations and questionnaires). Yin differentiates various sources of evidence, with their strengths and weaknesses, among which are possible candidates for quantitative analyses: documentation, archival records, direct observations, and physical artifacts. In case studies, quantitative analyses of these sources will then likely be used in addition to qualitative analysis and in context of the case of interest. Case studies are different from experiments and surveys, in which context effects are controlled, either by the study design or by statistical techniques.

This entry does not give an exhaustive account of all possible quantitative sources of evidence in case studies but instead presents some illustrative examples. An example of documentation is the annual report from which numerical information of organizations can be derived and analyzed, such as figures on the number of employees, profits, investments, sickness, and absences. Case studies focusing on working conditions of construction workers could use direct observations, for example, the amount of weight that has to be lifted and moved on a daily basis. An example of a case study of physical artifacts might require one to make an inventory of the art collection of banks in terms of number of art objects and type of art (e.g., figurative art vs. abstract art). This study of physical artifacts could be undertaken in order to explore expressions of corporate communication. Returning to the preceding discussion of sampling, sources of evidence may very well be selected through probability sampling. For example, to compare data from employees of the various departments, the researcher may make selections by using random samples of employee records from all of the company's departments.

Yin warns against a potential problem about analyzing quantitative sources of evidence: using categories that are too small and too numerous. This may be especially the case for beginning case study researchers. Yin's advice is that quantitative data should reflect meaningful events. To establish what is meaningful, it is necessary to render explicit the goals of the case study. This requires that the research questions of the case study need to be formulated before data are collected. During the course of the study it may, of course, appear

necessary to modify the research questions. This will become clear during *iterations*, which involve moving back and forth in the data collection and data analysis process. Quantitative analysis thus has a different function in case studies than in experiments and surveys. Because the latter research designs are more linear in nature, data analysis is a well-delineated phase in research. Case studies have a process and cyclical character and, as a consequence, the collection and analysis of quantitative data are less fixed and more dependent on what is needed to describe or explain phenomena in their context.

In embedded as well as single case study designs it may even be possible to conduct surveys at the level of each (sub)unit. These data may be highly quantitative, focusing on opinions, attitudes, and behavior of individual employees, and the data may be used along with archival information to interpret the success of, for example, organizational changes in the various departments. A possible drawback of collecting sources of evidence in embedded cases is a pooling of results across subunits. If survey data are pooled, an embedded case study design is no longer being used, and the investigation is likely to be a survey rather than a case study design. Thus, it is important to return to the larger unit of analysis; otherwise, the original phenomenon of study will shift. Quantitative analysis can be useful, but it must be considered within the frame of the case study design, examining a phenomenon in its real-life context.

To help to choose the right method for achieving the goals in embedded case studies, Ronald Scholz and Olaf Tietje discuss a number of methods that explicitly combine qualitative and quantitative knowledge. They differentiate four types of methods: (1) case representation and modeling (e.g., system dynamics), (2) case evaluation (e.g., risk management), (3) case development and transition (e.g., future workshops), and (4) case study team (e.g., synthesis moderation). These methods all deal with planning and decision making in case studies. An interesting example of the first type is the system dynamics method that, according to Scholz and Tietje, may answer key questions, such as "What are the most important variables in temporal dynamics?" and "What outcomes result from dynamic interactions of variables?" In situations where groups have to deal with wicked or messy problems (problems that have incomplete, contradictory, and changing requirements; in which different people have different views; and whose solutions are often difficult) system dynamics may be used as a problem-structuring method. In case studies, system dynamics may contain a qualitative phase in which essential variables are identified and related to each other by a group of people involved (e.g., stakeholders). Characteristics are so-called feedback loops that indicate any reciprocal flow of influence, so it does not take place in just one direction (as is the case in causality). Next, in a quantitative phase the identified relations are quantified and modeled. A quantitative model may then be used to study policy effects of interventions made in the system.

Analysis of Quantitative Data

In case studies, collected quantitative data may be analyzed in connection with other qualitative information but may also be used in their own accord. In combination with the analysis of qualitative data, quantitative data become part of the iteration processes of data collection and data analysis described earlier. Numerical data are collected, analyzed, and interpreted as though they are textual information to which informants and researchers give meaning. For example, archival figures on loss of working time due to illness are related to employee views on working conditions as expressed in open interviews. This may possibly reveal contradictions, such as espoused policies of organizations that are not achieved in practice. Often, such contradictions point to important aspects of the phenomena under study. Because it is likely that the weight attached to quantitative data compared with qualitative information will vary from study to study, no firm statements can be made in that respect.

A more exclusive focus on the analysis of quantitative data is evident when statistical analysis is performed. Examples include numerical and graphical displays of variables of study, such as the percentages of employees being ill and bar charts of such figures for different departments. These are called *descriptive statistics*. Another important characteristic of statistical analysis is to make

inferences (estimates, decisions, and predictions) about the population based on the sample of study. An example is to establish whether there is a statistical difference between various employee types and the mean number of days of absence due to illness. Statistical theory states that random samples are used to make correct inferences. Depending on the circumstances, random samples may be needed in case studies.

Application

Two exemplars of quantitative analysis in case study research are Vidu Soni's case study on reception for diversity in the public sector and E. B. De Groot, H. Korzilius, C. Nickerson, and M. Gerritsen's study on analysis of text and photographic themes in Dutch and British annual reports. Soni's study focuses on the factors influencing the acceptance of workforce diversity and support for diversity-management initiatives. The sample consists of employees from the U.S. Environmental Protection Agency. The diversity factors are the influence of race and gender identity, prejudice and stereotyping, and interpersonal relationships. Soni used a survey to measure perceptions and attitudes of employees and managers. The study consisted of the entire population of managers and a stratified random sample of employees, with groups based on race and gender. Although the author also reviewed several internal documents and conducted a few interviews, the analysis of the case was based on statistical analysis of quantitative data. One of the findings is that women and minorities show greater support for diversity in comparison to white men. In brief, this is an example of a case study that relies heavily on quantitative analysis.

Although De Groot et al. do not use the term *case study*, their research contains the characteristics of a case study combining a qualitative and a quantitative approach. The study is a corpus (content) analysis of text and photographic themes in Dutch and British annual reports. A qualitative aspect of the study is that the text-genre (written or spoken discourse) annual report is conducted within the social context within which the text evolves and is based on interviews with producers of annual reports. The content analysis of textual and photographic themes uses a sampling procedure that is a combination of a qualitative (purposive, based on

company size, the company's English language policy) and qualitative (cluster sampling according to industry) case selection method. A list of 97 text themes and 23 photographic themes is registered. Differences in the identified themes between the British and Dutch annual reports are analyzed statistically with chi-square analyses. One of the study's conclusions links the quantitative results with the qualitative evidence by suggesting that thematic differences between the Dutch and British annual reports may be attributable to communicative and historical conventions as well as to current affairs in the business community studied.

Critical Summary

Quantitative analysis is not the most common way to analyze in case study research; however, depending on the phenomena under study, the research questions formulated, the type of case study, and the sources of evidence used the collection and analysis of quantitative data can be profound ways to describe and explain phenomena that would not have been possible had the focus had been exclusively on qualitative analysis.

Hubert Korzilius

See also Case Selection; Case Study Surveys; Comparative Case Study; Multiple-Case Designs; Sampling; Statistics, Use of in Case Studies

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QUANTITATIVE SINGLE-CASE RESEARCH DESIGN

Quantitative single-case research is an experimental design that can be conducted with one subject or an entire group treated as a subject. The quantitative single-case research design (QSCRD) is relevant to case study research because it is a strategy used to identify a causal relationship between variables for one subject or individual subjects. In addition, the investigator has the potential to serve in a dual role as treatment provider and researcher, which has ethical implications. The quantitative single-case approach has its historical antecedents in biology, medicine, and psychology. QSCRD is inductive in nature in that it explores a single case to develop a rigorous theory or explanation for human behavior functions.

Conceptual Overview and Discussion

Theory-building in the quantitative single-case research design is a systematic process implemented with a high degree of researcher—subject matter contact. Instead of creating an a priori theory of human behavior, experiments are conducted to explore more open-ended questions than those that simply seek to determine the demonstrated effects of a treatment. Questions can also evoke comparison across treatments, identification of parametric or incremental changes in the treatments, and multicomponent analysis. Such rich questions can be posed and lead to data sources that have the potential to allow researchers to understand the behavioral processes that cause a technique to be effective.

Montrose Wolf, Donald Baer, and Todd Risely, founding editors of the *Journal of Applied Behavioral Analysis*, identified seven dimensions of applied behavioral analysis. These seven dimensions articulate the scientific procedures and practices of quantitative single-case research designs.

The first three dimensions deal with the process of completing the single-case study. The first dimension accentuates the area of research focus, which requires the researcher to identify a target behavior to be improved. The second dimension requires that the target behavior or variable be operationalized in terms of physical events or material existence in order to support precision in measurement strategies. Operationalizing a variable requires that the researcher describe the variable in disambiguated terms that set the criteria for a discernable effect on the variable. This allows the researcher to define and rationalize the expected change in behavior before an experimental intervention begins to ensure that treatment goals are met. The third dimension highlights the need for the experiment to demonstrate change in behavior by analytically evaluating the effects of the treatment or intervention on the behavior. Demonstrating this experimental control means establishing a functional relation, which indicates that the dependent variable (the measure of the target behavior) has been influenced by the independent variable (intervention) despite the presence of extraneous factors.

The fourth dimension accentuates the importance of establishing the functional relation through the use of design tactics that specify patterns of intervention using an alphabetic notation, or the "ABCs" of QSCRD. An A phase represents the baseline measurement of the behavior, that is, the behavior in the absence of an intervention. The B phase in QSCRD is the intervention or independent variable. An A-B-A-B design tactic would signify the following sequence of conditions: baseline, intervention, baseline, intervention. A general rule for determining the durations of the phases is to wait until the measure of the behavior is guiescent (stable or consistent over time). Ethical design tactics provide the researcher with a consistent and believable pattern while also not tiring the participant with excessive repetition of the same intervention patterns. Thus, for example, A-B-A-B-A-B design repeats the same pattern of interventions more often than necessary to discern a functional relation. When an intervention is already in place, a B-A-B design can be used. QSCRD design tactics generally rely on dependent variable sensitivity to the withdrawal or reversibility of the independent variable. At some point in the design tactic, Intervention B is applied, then it is removed and the effect on the participant of reverting to the baseline, A, is noted. Then Intervention B is inserted once more to note its effect on the participant. Additional independent variables can be tested by assigning more alphabetic symbols. For example, the design tactic of a study involving two independent variables, B and C, could be expressed A-B-A-C-A-B-A-C, which would signify baseline, Intervention 1, baseline, Intervention 2, baseline, Intervention 1, baseline, Intervention 2. Interventions can also be combined without an interleaving baseline. A plus sign (+) is used to denote the union of the two interventions in the design tactic; for example, the tactic A-B-A-C-A-B+C-A-B identifies the effect of B, the effect of C, and the effect of B+C and then replicates the effect of B. Furthermore, because the effect of B is replicated one can deduce the replication of C from the effect of B+C, and one can deduce the replication of B+C from the effect of C. Therefore, this is a more ethical pattern than A-B-A-C-A-B+C-A-B-A-C-A-B+C.

The final three dimensions deal with analyzing and applying the results of the single-case study. The fifth dimension consists of analysis of the findings to clearly map the observed effects of the intervention to a coherent conceptual system that explains the behavioral changes of the participant in terms of behavioral processes known in the literature. The sixth dimension advocates for clarity in articulating the effects of the intervention on participants. In QSCRDs this information is visually represented via graphs and analyzed on a continuous basis for the duration of the experiment. Information from each intervention session is plotted in a graphic display format. For example, the data are plotted with the dependent measure or frequency of responses on the ordinate (vertical, or y-axis) and the data are plotted over time represented by the abscissa (horizontal, or x-axis), along with indications of when the stimuli of the intervention or interventions were applied. This graphic visualization provides immediate feedback about how the participant is responding to the intervention. The seventh dimension addresses the need to ensure generalized effects within the relevant context studied and the behaviors studied.

QSCRDs are valuable because they are fluid enough to conduct an experimental study with a single participant or single large group and to fuel the articulation of questions for deductive or between-group research. However, research questions that explore the differential effect of treatments on subjects with varied characteristics are not the purview of QSCRDs; hence, they must be regarded as outcome questions to be studied with other techniques. Another limitation is that false positives or negatives may result from the influence of extraneous or uncontrolled variables or inadequate experimental procedures. For example, with brief experimental designs a false negative result may arise if the intervention is not given enough time to take effect or if a succeeding baseline is not persisted long enough for the effect of the intervention to fade.

Application

An exemplar of the QSCRD was conducted in 1968 by N. Azrin, R. J. Jones, and Barbara Flye. The target behavior or dependent variable was the mean percentage of words stuttered in spontaneous speech during social interaction. The baseline A condition was a regular communication period with a speech therapist. During the A condition the researchers recorded approximately 30% speech disfluencies. The intervention, or B condition, was introduced by the experimenters whereby a wristwatch emitted an intermittent pulsation as a tactile stimulus that the participant used to regularize his or her speech pace. At the start of this intervention, and as long as the intervention took place, the disfluencies decreased to 5% of utterances. When the baseline A condition was reinstated, the disfluencies increased to 25% of the utterances. The experimenters established a functional relation whereby there was a consistently high mean percentage of words stuttered in regular speech and, by introducing the rhythmic stimulus of the wristwatch, there was a measurable change in the percentage of disfluencies.

Critical Summary

QSCRD is a foundational tool that allows researchers to pose open-ended questions that can be answered using samples of individuals, classrooms, schools, and other large groups without the need for an experimental control as a contrasting group. The use of QSCRDs has the added benefit of complementing deductive research by facilitating the exploration of innovative techniques, refinement of these new interventions, and the examination of intervention effects with individuals or within groups. Follow-up research questions that examine the effects of interventions across groups or subjects

with varied characteristics must be studied with complementary deductive research techniques.

Wanda Boyer

See also Inductivism

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QUASI-EXPERIMENTAL DESIGN

In a classic experiment, a researcher randomly assigns a treatment to some subjects or units of analysis while assigning other subjects to a control or comparison group. Random assignment allows for probabilistic equivalency between the groups, permitting the researcher to assume the two groups are the same except for treatment. This in turn allows for a clear inference about the causal effect of a treatment after a comparison of results between groups.

Natural experiments and quasi-experiments attribute some causal property to an event (e.g., the introduction of a law) or an intervention of nature (e.g., a natural disaster) and then seek to demonstrate differences before and after the treatment or between the treated and the untreated. The distinction between natural and quasi-experiments generally turns on whether the intervention was a natural or a non-natural one. Other than the source of intervention, they are theoretically indistinct. Either way, the analyst has no control over assignment. Because the researcher merely observes the application of treatment, he or she most often cannot be sure that it was randomly assigned. Consequently, quasi-experiments differ

fundamentally from classical experiments. Although quasi-experiments appear to be like experiments, this lack of random assignment of subjects to conditions is a fundamental difference.

Conceptual Overview and Discussion

The proper use of a quasi-experiment depends on establishing the equivalence between units. This is often achieved through the use of control variables in a multivariate regression framework, or through the use of extensive case histories. Analogous to the between- and within-subject design, some quasiexperiments will compare differences across regions or subjects. For example, one could examine the effects of smoking on community health in one state that has a smoking ban and another that does not have such a ban, provided the states are otherwise similar on key variables. By comparing community health measures, some inference could be made about the effects of smoking bans. Alternately, an analyst could compare changes over time in the same region, for example, gauging the effects of a smoking ban in an isolated community before and after a ban is introduced, as was performed by Richard Sargent, Robert Shepard, and Stanton Glantz in their study of a smoking ban in an isolated Montana town.

The difficulty of inference from quasi-experiments is clear. Unlike in the laboratory, the analyst here has to contend with endless sources of interference, lack of control, and multiple plausible explanations of observed changes. In their 1968 study of a crackdown on speeding in Connecticut, Donald T. Campbell and H. Laurence Ross provide a definitive analysis of a quasi-experiment. The fundamental credo in drawing causal inference from a quasi-experiment, they contend, is that because we lack control and randomization it becomes much more difficult to establish cause and effect, especially in the face of competing explanations. Causal inference is possible, then, only because analysts can use observations before and after the event as well as auxiliary data to establish trends, minimize noise, pick up regressions to the mean, and rule out other explanations.

Application

A prototypical and well-conducted quasi-experiment is Steven Levitt and John Donahue's analysis of the

relationship between the legalization of abortion and reductions in crime in the United States. It makes a strong causal claim because it meets Campbell and Ross's standard. First, it lays bare a mechanism. This means that it makes clear what the theoretical relationship between a cause and an effect should look like. Second, it establishes its causal plausibility; that is, the authors demonstrate that the relationship is possible or even likely. Third, they leverage auxiliary data. This means that they take measure of and control for other factors that may be explaining the outcome they are interested in understanding. They make use of cross-sectional variation; they look at differences in their cause and effect across units and show that their differences are what would be expected according to theory. Finally, they consider and dismiss other possible explanations. Not only do they demonstrate support for their own theory, but also they show why their data make other explanations less plausible. The puzzle they confront is significant: What explains the drop in violent and property crime in the United States in the 1990s? Their argument is that the widespread availability of abortion following Roe v. Wade reduced the number of unwanted children brought into the world while also allowing mothers to more optimally time the birth of their children so as to reduce early hardship on their offspring. As a result, the population had a smaller share of individuals likely to commit crime.

To demonstrate this, Levitt and Donahue leverage cross-sectional variation, because states differ in their observed values on other known correlates of crime. They also leverage variation over time, because there is a clear break in the law before and after Roe v. Wade as well as five states that had legalized abortion 5 years earlier (and should thus see an earlier drop in crime). It should be noted that this particular case is well suited to a natural experiment for another reason: Although assignment was not random, it was also not correlated with other possibly causal factors in the states. All states were affected by the legalization, so there is necessarily unconfoundedness. Levitt and Donahue first establish the plausibility of a link between more abortion and less crime. They specify the causal mechanism through which abortion would reduce crime. Then, using their between- and within-subject variation, they demonstrate that the link may be causal rather than the result of some unobserved heterogeneity. Using a Bayesian framework, they next establish the expected degree of change based on prior research. In other words, they consider previous estimates of such effects and then determine whether their own findings are reasonable and in line with previous claims. With their theoretical story and their expectations laid bare, they engage a cross-sectional time series model that controls for a number of competing explanations. The result is a collage of data in which their conclusions rely not on one single piece of evidence but on several findings. They do not rely on a single test, but instead go step by step in a process that establishes the most basic plausibility and then works out from that plausibility to see if it is supported by the evidence. Because quasiexperiments can never be definitive about the size of a cause's effect, they should generally be conducted with a similar degree of caution and care.

Critical Summary

Quasi-experiments in case study research will not always yield a large number of cases or units of analysis. Instead, the researcher will often be limited to a collection of observations in a single unit or case before and after some change, allowing for within-case comparisons. Alternately, the researcher may have a small number of treated and control cases through which to make between-case comparisons. The smaller the number of cases, the more work a researcher has to do to establish equivalence, minimize noise, and find convincing arguments and evidence for the dismissal of alternative explanations. Quasi-experiments are often but not always available.

Peter John Loewen

See also Bayesian Inference and Boolean Logic; Quantitative Analysis in Case Study; Quantitative Single-Case Research Design; Random Assignment; Statistical Generalization; Statistics, Use of in Case Studies

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QUESTIONNAIRES

Questionnaires provide case study researchers with a data-gathering technique that collects, through written self-reports, either quantitative or qualitative information from an individual unit (e.g., a child, group, school, community) regarding the unit's knowledge, beliefs, opinions, or attitudes about or toward a phenomenon under investigation. This method of data collection is one of a subset of general survey techniques that includes collecting information either through oral responses, such as interviews, surveys, or polls, or through written responses, such as questionnaires, scales, or other documents. In case study research questionnaires can be used in two ways: (1) They can be the primary strategy for data collection or (2) they can be used in conjunction with other case study techniques, such as participant observation, interviewing, or document analysis.

Conceptual Overview and Discussion

Two competing paradigms of the social sciences—the scientific and the naturalistic—dominate research and have implications for how questionnaires will be designed for case studies. The scientific paradigm views social science as similar to natural science and requires researchers to identify universal and natural laws to explain social behavior; social reality is peripheral to individuals and imposes itself on individuals' awareness. Individuals are controlled by external circumstances and

respond to these circumstances in a mechanistic and deterministic manner. Researchers who adopt the scientific paradigm identify and measure the relationships between variables in the environment to determine these variables' influence on individuals. Conversely, the naturalistic paradigm views people as different both from natural phenomena and from each other and requires researchers to search for what is unique to the individual. Social reality is created by the individual and is viewed as personal, subjective, and unique. Individuals control their environment and make choices based on personal experience. Researchers who adopt the naturalistic paradigm are concerned with how individuals create their worlds and how they interpret the circumstances in which they find themselves.

Researchers who use questionnaires to collect case study data will design these questionnaires on the basis of their views of social reality. Those who see reality as existing independent of the knower identify and measure the relationships between variables through standardized questionnaire items that make it possible to summarize, compare, and make generalizations about the influence of the variables on the respondents. For example, a researcher may identify time on task as an important variable that affects children's learning. A questionnaire item may ask all children in a science classroom to respond, on a predetermined response category scale that ranges from strongly agree to strongly disagree, to a statement such as "The more time I spend on a science problem, the more I learn." Conversely, researchers who want to know how children create a world in which learning occurs may ask the children to respond to a situation in the form of an open-ended statement/ question such as "Describe a situation in the science classroom where you believe you learned something important about science. If I were your best friend sitting next to you, what would I have seen you doing? What would you have been thinking?"

Previously, a researcher's choice of collecting either quantitative or qualitative data would lead to consideration of relative strengths and weaknesses in the methodology selected. More recently, the argument over which data set more closely represents "truth" has given way to an increased use of multiple methods that combine quantitative and qualitative data. The specific example given demonstrates that qualitative data collected from

open-ended questionnaire items can complement quantitative data by providing individual elaborations, explanations, and meanings to the time-ontask variable. As a general rule, the more structured the questions and the more restricted the answers, the more quantitative the responses will be; conversely, the more open-ended the questions, the more qualitative the responses.

Questionnaires that use standardized questions are generally selected as the data collection instrument when the researcher needs answers to many straightforward questions (e.g., numbers of books read by each child in a classroom, time spent on homework, etc.). However, because case studies often investigate many different characteristics of individual units, a researcher may not have a readily available instrument, and it will be necessary to design and test the questionnaire. Virtually all research textbooks have sections on the design of questionnaires, so this aspect is not covered here, except to provide some general comments on the suitability of questionnaires as research instruments. Unlike oral response methods, such as interviews, questionnaires remove interviewer bias and permit respondents' answers to remain anonymous. Questionnaires also allow respondents as much time as they wish to answer the questions, and they provide greater uniformity across answers because each person responds to exactly the same question. Because they can be given to a great number of people, they are less time-consuming than methods that obtain data through oral responses. There are, however, some limitations to questionnaires. They do not provide the flexibility that interviews do (e.g., follow-up probes). Respondents are usually better able to express themselves orally than in writing, and questionnaires may compromise the willingness of participants who have limited reading and writing abilities to provide thorough and complete responses. As a result, written responses to open-ended questions are viewed as the most basic and simple form of qualitative data, and their validity can be suspect. In much case study research investigators appear to opt for interview methods over written responses to open-ended questions.

Recent advances in computer software have made both quantitative analysis of responses to standardized items and qualitative analysis of responses to open-ended questions a relatively straightforward task.

Application

One example of case study research that incorporated the use of questionnaires is David Reinking and Janet Watkins's 2000 case study of the use of multimedia book reviews to increase elementary students' independent reading.

The particular issue that informed the case study was Reinking and Watkins's belief that previous studies of the influence of technology in schools had not dealt with the multiple and interacting variables present in school classrooms that influence outcomes in the classroom. Studies that focused on situational factors or uniform instructional interventions and evaluated program outcomes quantitatively failed to explain how a particular computer-based activity might produce unique effects; conversely, qualitative studies often failed to identify factors that detracted from program success or identify instructional interventions that could help ensure success.

To fill in the gap that existed in the research, Reinking and Watkins used a mixed-method case study approach. Prior to the study, the research team used participant observations, individual and group interviews, and teacher logs to gain an understanding of the students, teachers, classrooms, and schools. At the same time, they gathered quantitative data through a standardized student reading attitude survey and researcherdeveloped student and parent questionnaires. During the study, the researchers gathered qualitative data through interviews, discussions, and personal logs from teachers. The quantitative measures established baselines for comparing the amount and diversity of students' independent reading both prior to and following the instructional interventions. Following the instructional intervention, the same standardized instruments used prior to the intervention were used to evaluate gains. Consistent with mixed methodologies, however, the quantitative data from the questionnaires were used not to determine causal relations but to complement inferences drawn from qualitative analysis.

What emerged from the analysis of the multiple data sources that was not apparent from the independent examinations of the quantitative and qualitative data was a deeper understanding of the instructional activities that contributed to advancing the goal of increasing student reading. Reinking

and Watkins recommended, on the basis of the findings, that this methodological approach be considered when one is seeking insights not typically associated with alternative methodologies.

Critical Summary

The use of questionnaires in case study research assumes that respondents possess both a personal awareness of the phenomenon under investigation and the ability to articulate their understandings of it. Even if there is doubt about the respondents' abilities, however, it is still better to collect possibly incomplete information and subsequently confirm or disconfirm its validity through supplementary approaches, such as the reports of others. Questionnaires, when used to complement other sources of information, can provide the researcher with the rich empirical data needed for high-quality case studies.

Colin Chasteauneuf

See also Interviews; Mixed Methods in Case Study Research; Ontology; Qualitative Analysis in Case Study; Quantitative Analysis in Case Study

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Quick Start to Case Study Research

There are seven essential understandings of case study research that are relatively uncontested and that can be helpful for a quick start. These basic understandings are essential to quality case study research as they relate to (a) definition, (b) purpose, (c) data sources, (d) field work, (e) researcher

role, (f) analyses, and (g) writing structures. Of those seven, the two most critical are the overall purpose of case study work and the pivotal role that the researcher plays in determining the quality of the study. Although there are many different types of case studies that warrant further reading, the central purpose of all of them is to help us notice and understand particular aspects of the human experience that are often overlooked or unexamined by other types of research. It is largely the researcher's skill set that allows access to such nuances in human understanding. The ethical decision making and conduct of the case study researcher is central in safeguarding the dignity of participants and the rigor of ideas.

Conceptual Overview and Discussion

Definition

Case study refers to both the process of inquiry (how we study the case) and the product of that inquiry (the write-up or representation of the case). A case study is a systematic way of looking at what is often termed a bounded system, meaning one entity that has distinct limitations or a finite size. Examples of case studies may include any event or practice that occurs repeatedly over a particular duration of time, such as triaging practices in an emergency room, or a singular event such as the election of the first African American U.S. President, Barack Obama (bounded in part by the 22-month campaign and the single focus on one president) Alternatively, a case may focus on a phenomenon such as Canadian "snowbirds" (senior Canadians who winter in Florida), the case being bound by the criteria of this one behavior. A single traumatic event frozen in time, such as the Columbine tragedy, may also be subject of a case study.

Purpose

The purpose of case study research is twofold: (1) to provide descriptive information and (2) to suggest theoretical relevance. Rich description enables an in-depth or sharpened understanding of the case. Attention to theoretical relevance facilitates the emergence of concepts that can shape theory (which is simply a coherent set of ideas that are proposed to explain, predict, and sometimes control phenomena).

Data Sources

To get rich descriptions and make relevant theoretical connections, observational data are often collected (sometimes noted/coded or captured through technology); interviews are conducted (often captured through technology); artifacts are compiled (documents, works in progress, etc.), and research field notes are kept for preliminary and later analyses.

Field Work

Robert Stake notes that the essence of *field work* (actually collecting the data at the research site) involves spending extended time, on site, personally in contact with activities and operations of the case, reflecting and revising meanings of what is occurring. He emphasizes the importance of bringing your best intellect to the work and a heightened awareness and respect for culturally specific perceptions of phenomena.

Accessing the meanings that participants attach to the phenomenon (the "what" of the study) is the main purpose of repeat visits to the site. A high-quality case study is often the result of astute and systematic approaches and the use of procedures and protocols that were thoughtfully designed prior to entering the site. At the same time, responding and flexing by refining systems, procedures and protocols on the basis of the earliest data analysis in the field is equally important.

Role of the Researcher

The role of the researcher is pivotal in case study research. Beginners in case study research sometimes perceive their role as being neutral. This is not so. Researchers, by their very presence, influence the research site in some ways, and to varying extents. This is sometimes intentional, as in the case of participant observation ("doing" alongside the study participants) or, more often, unintentional and unavoidable by the various labels and identities (outsider, expert, other, etc.) that may be ascribed to the researcher. To grasp the scope of the individual researcher's role, and its potential for impact on the case, requires an early examination of the researcher's own beliefs and expectations about the case. Observational skills, along with verbal and nonverbal communication skills,

should not be taken for granted but thoughtfully considered prior to entering the field. Robert Stake reminds researchers that they are guests in the private spaces of the participants. Such a status requires an unwavering commitment to ethical conduct and good manners appropriate to those private spaces.

Data Analysis

Data analysis is a systematic search for meaning by asking questions of the data (the transcripts of the interviews, the observational protocols) to reveal the answers that are most pertinent to your research. Such analyses proceed inductively (from the specific to the general) as the researcher searches for patterns so that general statements about the phenomena can be made. Analyses may stop once the research questions have been answered and a relative confidence emerges that the findings can be organized into a sensible text. In the written report, it is important to clearly explain how the researcher proceeded in analyzing the data, as well as to provide an explanation or justification for proceeding in this way. Case study analysis is not complete until the report has been written, because the need to communicate with clarity to the reading audience invites further analyses, sometimes through the use of metaphor, composite vignettes, and so on.

Writing Up the Case

In writing up a case study, consider facilitating your induction into case study research by adopting a structured approach if this fits your purpose and writing inclinations. One such approach is to make a 50-50 allocation, starting first with data presentation (a description of what happened in the study) followed by conceptual analysis (how you explain, interpret, and make sense of what happened in the study), which can help the reader to first appreciate the descriptive foundation before grappling with the conceptual discussion. Another straightforward approach is to follow the advice of lead experts Yvonna Lincoln and Egon Guba, by framing the report around the problem, the context, the issues, and the lessons learned. By all means, if such structured approaches block creative/innovative energies or compromise the desired texture of the case the researcher may shape the write-up in ways that are coherent and appropriate. Whatever the writing approach, it is often helpful to locate similar case study reports (especially in the journals within the particular discipline) and to analyze the rhetorical structure for provoking and refining thinking and writing.

Application

Three key propensities (or cultivated tendencies) lead to optimal experiences in case study research: (1) preparation, (2) discernment, and (3) perspective. Quite arguably, their absence is responsible for innumerable problems in case study work. Nurturing such leanings communicates authentic respect for participants and the research process.

Preparation

Foremost, preparation involves the allocation of time and effort in preparing the design of case study (preferably with a scholar who has some expertise). Preparation includes early decision making about the type of case (best determined by comparing different types of cases to find the one that resonates with your purpose and feasibility). Planning and preparation must acknowledge the necessary tension and commitment to a systematic approach that also allows maximum flexibility in a dynamic environment. Attention to such planning, long before arriving at the research site, paves the way for securing data with staying power and improving clarity in writing up the case. Preparation is an early indicator of respect for the participants, their time and their living spaces, and the resulting data collection tools (i.e., interview questions, observational protocols, etc.) developed for the project keeps the boundaries and focus clear.

Discernment

Discerning decision making (e.g., when to probe in an interview, when to shift gaze during observation) can invoke confidence and trust. Subtle and explicit discerning communication from the researcher shows that he or she has an emerging understanding, sensitivity, and respect for the ways and perspectives of the participants. As with all worthwhile endeavors in human dealings,

monitoring and deciding when to speak, remain silent, gesture, lean into, and withdraw or stimulate discussion affects the quality of interactions. Such nuanced communication is often palpable and cumulative at the research site and may be fully assessed and articulated only after careful examination of the data or the realization of the absence of data. Discernment can be practiced in familiar surroundings with friends and colleagues by carefully attending to meanings from both verbal and nonverbal communication and making subtle but intentional efforts at demonstrating perceptiveness, awareness, and insight (close cousins of discernment). Additionally, envisioning likely opportunities and scenarios in which discernment may be required at the research site is also helpful. (For example, it should not come as a surprise that workers do not wish to be the undue focus of the researcher's gaze when they engage in something short of best practices.)

Perspective

An ability to keep *perspective* (a sense of relative importance, varying viewpoints, in-context meanings, assessment of the likely life span or significance of an incident or comment) is a much-sought-after skill in any knowledge seeker. Assigning value to the multiple and competing perspectives of others and acknowledging the researcher's perspective are critically important. Beginners usually have a theoretical commitment to valuing multiple perspectives; however, honoring multiple and competing perspectives in the flow of case design, data collection, analysis, and reporting often requires a continual focus. This focus can be maintained or enhanced by asking some important questions, such as "How may I be sanctioning, privileging, or silencing particular expressions of perspectives in the design of my study, my 'reading and uptake' of the research literature, and/or in my collection practices and roles at the research site?" and "How might I invite significant others (participants, colleagues, community experts) to comment in a purposeful and authentic way on my emerging work at various stages?" Some useful questions to ask others are "What thoughts come to mind as you read this (research plan, transcript etc.)?," or maybe "In what other ways is this idea taken up?" Most

important, people need time to respond. Providing transcripts, questions, and information before meeting makes thoughtful responses more likely. During meetings respectful silence, timely pausing, and careful listening may affect the substance of the feedback. Also, taking notes (with permission) may result in fewer missed ideas in efforts to gain multiple perspectives.

Critical Summary

Success in case study research is often predicated on a commitment to preparation, ethical behavior, and knowledge-building related to the seven essential understandings of case study research methods. Successful case study researchers remember the general purpose of this method and at the same time articulate the specific purpose of their particular type of case. They also delineate the parameters of the case (by naming the constituent parts of the bounded system to be studied) and make early decisions about data collection procedures and their role as a researcher. It is also critical to plan the structures and processes for analyses and writing up of the case as part of the study design. Most important, beginners are well positioned for high-quality case study work when they (a) acknowledge the critical importance of nurturing multiple perspectives, (b) proceed systematically (acknowledging and agreeing to adjust systems to circumstances), and (c) solicit authentic feedback from participants and knowledgeable others in the community and academic institutions.

Ruthanne Tobin

See also Descriptve Case Study; Ethics; Exploratory Case Study; High-Quality Analysis

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R

RADICAL EMPIRICISM

Radical empiricism is the view that sense experience is the source, limit, and justification for all knowledge. In case study research radical empiricism is the tendency to emphasize observable facts at the expense of theoretical and rational reflection.

Conceptual Overview and Discussion

Empiricism may be summarized by the now-famous axiom "Nothing is in the intellect which was not first in the senses." As a theory of knowledge, empiricism raises questions about the relationship between knowledge and experience. Historically, empiricism has been at the center of developing social research methodologies, yet although empirical observations are indispensable to notions of evidence in the sciences and in case study research there is no unanimous agreement on what should count as empirical evidence or how we should collect and interpret that information.

Radical (naïve or strict) empiricism is an extreme position that makes two bold claims: (1) Experience is the source of all our ideas, the raw material for thinking, and (2) experience (e.g., as immediate observation) is the standard by which we may justify knowledge. For radical empiricists, our everyday, commonsense ideas represent the world as it is given to our senses because our experiences of the world are direct and unmediated. However, if our knowledge of the world is derived only from our senses

and what is discovered through them, as radical empiricism maintains, we cannot ultimately be sure that there is a mind-independent world, that we have knowledge of it, or that the causes we attribute to given phenomena exist outside our own minds.

Typical empirical research takes the form of observation-based investigations that aim to discover and interpret facts, theories, and principles about the world. It is common for researchers to move beyond direct observation by offering explanations and generalizations. In the radical empiricist account, however, these are misguided aspirations. The use of theories, laws, and principles that generalize the world on the basis of observations (whether that may include taking measurements, samplings, surveys, interviews, or doing case studies) may serve as helpful summaries and correlations of sense data, but they are not certain representations or descriptions of the underlying structure of the (social) world. For instance, in case study research observations are often carried out in real-life contexts where one attempts to gain insight into phenomena through more or less direct interaction. The credibility of a description or an explanation for why something happened is most often measured by the degree of empirical support. However, the adoption of a strict or radical empiricist view places severe limitations on this kind of research. The more radical an empiricism the more one places emphasis on immediate and direct sensory impressions or bare experience for knowledge-the more one becomes doubtful of other, nonexperiential knowledge claims, whether scientific or common sense.

Radical empiricism raises troubling questions for researchers. First, if all we know are our own isolated ideas (derived directly from experience), how might we know if our ideas correctly represent the external world and the apparent causes of social phenomena? Second, if we cannot justify knowledge that goes beyond direct experience, how may we have a comprehensive explanatory science? Or, more specific to case study research, how may we be justified in drawing general conclusions from limited sets of data?

Radical empiricism began with the British empiricist David Hume, whose skepticism about the limitations and uncertainty of knowledge led many to the conclusion that empiricism is an inadequate basis for knowledge. Before Hume, most empiricists believed that we may have certain and universal knowledge. Hume set a new standard for knowledge with which all subsequent forms of empiricism have been left to contend. All meaningful statements or concepts, for Hume, must be traceable back to direct experience. What we experience are sense perceptions, and what we know comes from *sense data*. Hume argues that we first have impressions (immediate data of experience or vivid sensations), and then we have ideas (which are derived from experience and are something like copies of impressions) that provide us with what we need for thought. The famous dichotomy of "Hume's fork" argues that all possible objects of human reason are divided into two kinds. They are either *matters* of fact, which typically belong to the more empirical sciences, or relations of ideas, which are analytic and thereby properly understood through disciplines such as mathematics and logic. Relations of ideas, as in geometry and algebra, are true by virtue of their meanings and relations and are independent of sense experience and the sensible world. They are logically or necessarily true, but not something we experience "out there" in the world. For instance, we might agree that the square of the hypotenuse is equal to the square of the two sides of a triangle, but this is not something we directly experience. Likewise, although we may have a kind of certainty about relations of ideas they cannot tell us about a reality behind our experiences. Moreover, matters of fact inform us of the world, but they are only probably true, because they are derived from limited, isolated, and particular experiences.

Application

Radical empiricism imposes such severe limitations on what we may know that there is no way of achieving certain and universal knowledge about the world. Moreover, if we cannot claim knowledge of anything beyond the boundaries of sense experience, not even an external world, then many of our commonsense views of reality and experience must be rejected. One of the most significant problems of radical empiricism comes from Hume's belief that although experiences of the world may seem to be continuous and causally connected one to another, they are actually only momentary and isolated perceptions. It is our minds that link atomistic or discrete perceptions of phenomena together in order to give the impression of causal relationships. Thus, because we have no evidence for anything beyond what is currently perceived, and we do not directly experience cause and effect, we must reject the widely accepted notion that every event must have a cause. Causes (and other bundles of sense perceptions) are ideas bound in our minds by habits of experience, not true and independent representations of the world. In Hume's view, we may experience correlations, but not causation. In like manner, we must also be suspicious of any abstract laws, theories, or principles of nature.

Kant, in response to Hume, also accepted the empiricist claim that knowledge begins with experience, but he rejected that our concepts directly result from unmediated impressions from the external world. He argued that our minds do not mirror reality but have an active role in constituting or determining the nature of objects. The mind shapes the external world through specific categories of our understanding. Unlike Hume, who was forced to abandon long-cherished notions such as substance and causation, Kant was able to argue that they are, in fact, universal and necessary because, as contributions from our minds, they are more than mere sensory perceptions. Since Kant's time, it has become common to grant that there is at least some creative influence from the mind on what we think of as reality.

A more recent form of radical empiricism belongs to William James. For James, all ideas and theories are grounded in experience, and no experience should be excluded, even from science. Instead of limiting what constitutes experience to individual sensations or sense data we must seek to explain a much broader range of meaningful phenomena given in experience that includes the connections among sense data. Experience, for James, consists in both *particulars* (discrete sensations) and relations or connections among particulars. James's radical empiricism is meant to be a fruitful way of talking about meanings and values that traditional empiricism does not.

Critical Summary

Empirical research remains at the core of scientific research, but it is insufficient on its own. Radical empiricism may initially seem helpful to case study research by emphasizing immediate and concrete affairs over abstract theories and principles, yet the traditional form of radical empiricism is at odds with scientific realism and all attempts to go beyond experience to account for phenomena. It does not seek explanatory causes or relations, only phenomena given directly in experience. The typical response to radical empiricism is that reality is too complex to be known through the senses alone. Indeed, we need more than knowledge derived from direct observation if we are better to explain and describe social realities and interactions.

Jason Christopher Robinson

See also Direct Observation as Evidence; Experience; Objectivism; Pragmatism; Reality

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RADICAL FEMINISM

Radical feminism is a theoretical and political perspective that focuses on the domination of women

by men. This domination is viewed as the most fundamental form of human oppression that occurs in all societies, regardless of class, race, or ethnicity. It is a political approach, because its strategies and ideology call for the change and reconstruction of society.

Conceptual Overview and Discussion

Radical feminism is a diverse body of thought that has its roots in the U.S. civil rights movement as well as the New Left political movements in America in the 1960s. Women involved in these radical groups became dissatisfied with what they saw as sexist elements within them. They became increasingly focused on struggles for women's rights and developed theory committed to ending female oppression and to promoting emancipation and progress. Radical feminists believe that all women, regardless of ethnic, class, religious, or any other difference, share a common experience of oppression and pain, and this belief has become the rallying cry for the movement. It gained support in the United Kingdom and Australia during the 1960s and became increasingly ideologically diverse through the 1970s.

Two distinct forms of radical feminism are often identified: (1) libertarian and (2) cultural. they differ in their emphasis and in the value that is placed on ideas of femininity and femaleness. A radical libertarian approach emphasizes the emancipation of women from their reproductive and domestic roles and the development of societies no longer determined by biological imperatives and polarized sexual roles. In contrast, radical cultural feminism fully embraces the essential femaleness of woman, focusing on the importance and value of female qualities. Radical cultural feminists argue that such qualities were not only different from but also superior to male characteristics. They suggest that distinctive qualities arising out of experiences of motherhood and women's connection with nature give women greater capacity for empathy and caring. In contrast, male sexuality is viewed as aggressive and domineering, intent on the control and submission of women. Radical cultural feminism therefore places great emphasis on identifying universal and coherent gender categories of "man" and "woman" and on identifying clear patterns of difference between them. It is assumed

that women perceive the world differently than men and embrace certain values that are derived from their material, marginalized, and alienated positions. Women's oppression therefore provides them with a unique standpoint that is privileged and better able to expose the reality of gender subordination. A dominant strategy of radical cultural feminists is the creation of parallel female countercultures, in which female values are nurtured and lesbianism is highly valued. Different types of women-only initiatives, such as women's health centers, rape crisis centers, and women's studies programs, were created by women and for women. It has been suggested that the emphasis within these types of feminist groups was on lifestyle issues and that the most effective political action was viewed as the complete separation from all men and engaging in women-centered organizing.

A radical feminist approach is therefore often defined as the construction of theory on women, for women, and by women, with the emphasis on the importance of studying and theorizing women's situations and experiences. An important aspect of radical feminist ideology is the emphasis on patriarchal gender relations that produces male supremacy and female oppression. *Patriarchy* is defined as a relationship of dominance, and radical feminists have used the term to show how men use social systems to dominate women and to make them subordinate. Patriarchy is viewed as a pervasive and transhistorical system of institutionalized relationships of power. Freedom for women can be achieved only when they break out from the patriarchal system and discover their own "true" consciousness and voice. Therefore, rather than focusing on barriers facing women, radical feminists challenge the cultural imperatives that determine how processes such as organizations and families should be structured. Organizational bureaucracies are viewed not as rational but as fundamentally gendered, privileging male characteristics of rationality and reason over female values of caring and nurturance. Feminine ways of organizing are viewed as very different from male bureaucratic forms, and radical feminists argue that the latter need to be challenged and overthrown in order to eliminate the oppression of women. Women's resistance is constructed within a grand project of societal transformation, with the belief that a reordering of society will ultimately liberate everyone from injustice and oppression. The emphasis within the approach is on the promotion of the feminine and female qualities as a way of organizing or, more radically, on a move away from participation with men into separate women-only organizations, run along feminine principles to fulfill women's needs.

The radical feminist approach emphasizes the importance of speaking out, as women, and of identifying women's experience as universally shared. The focus is on a qualitative and collaborative research approach that makes a difference to women's personal and public lives. This calls for a transformation of existing patriarchal structures, including those in the family and marriage, as well as bureaucratic organizational structures, all of which oppress women. The familiar slogan of the approach— "The personal is political"—proclaims the epistemological alignment between personal and political issues. The approach also emphasizes a practical politics that is oriented toward empowering women by making different forms of female oppression more visible. Consciousness-raising groups and other local activist associations were formed during the 1970s and 1980s, bringing together intellectuals, workers, and middle-class women in developed Western countries to discuss their experiences. These groups developed a sense of shared repression and united sisterhood against male supremacy and systemic male domination. The emphasis within these groups, and within radical feminist research more generally, was on empowering women to think differently; to ask different questions; and to value their intuition, skills, and personal experiences.

Application

Ferguson's (1984) book *The Feminist Case Against Bureaucracy* can be viewed as an example of a radical feminist vision and transformatory project. Ferguson draws on the Foucauldian interpretation of discourse to present a radical feminist critique of modern bureaucracies and of how women's voices and women's experiences are a submerged discourse within the bureaucratic organization. This is based on the argument that women's experiences, located in subordinate and caring roles, are fundamentally different from

those of men. A feminine discourse is viewed as a potential voice of resistance to the overarching bureaucratic control structures. Through deconstructing the bureaucratic discourses, and advocating a different set of values based on women's notions of morality and individual identity and emphasizing caring and connectedness, an alternative mode of personal identity and social interaction may be promoted. It is argued that out of this a new way of understanding and action will emerge. The aim, Ferguson argues, is not for feminine discourses to be incorporated within the dominant bureaucratic discourse (i.e., to become like those of men); instead, the subjugated feminist discourse should be used to render bureaucratic capitalism obsolete by challenging the truth claims upon which it is built. Ferguson argues that resistance within existing bureaucratic structures is unlikely to be a successful project for women. She dismisses the liberal argument put forward by liberal feminist writers that an increase in the numbers of women in senior positions will change the nature of bureaucratic control, arguing that to succeed within the existing frameworks demands that women internalize the bureaucratic discourses. Women and men struggle within bureaucracy, Ferguson argues, but women more so because of the "double disadvantage" due to their subservient position within the home. The solution to the bureaucratic problem is the adoption of a new and different vision of collective working. Although she provides no precise blueprint, she is clear that this vision should be based on feminist values and principles such as equality, nonhierarchy, community, and empowerment.

Critical Summary

The radical feminist approach comprises a diverse set of views focusing on the oppression of women. The emphasis of the approach is often on a united sisterhood, on significant differences between men and women, and on a common experience of pain and oppression as the main source of feminist political struggle. The approach, however, has been criticized for assuming a common sisterhood and a collective identity of woman. It is also accused of privileging certain representations of women that are largely drawn from academic, white, middle-class groups and that it therefore

cannot be generalized to other groups of women. Other women's voices, of different race/ethnicity and class, are effectively silenced and oppressed by the approach, with the universal and coherent category "woman" unable to address the diverse experiences of different women. These critics question whether it is possible to talk of women's oppression in a simplified collective sense, without paying attention to interconnected forms of oppression, such as race, sexuality, and class. Finally, a radical feminist analysis has also been accused of presenting too determinist a view of women's oppression, whereby women are viewed as the victims of male power and in which there is little recognition of women's capacity for power and resistance.

Annette Davies

See also Liberal Feminism; Postructuralist Feminism

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RANDOM ASSIGNMENT

Random assignment is a research tool derived from experimental design. It is the procedure of randomly assigning some subjects or units of analysis to receive a treatment or a condition while other subjects or units of analysis do not receive the treatment. For example, in a medical study some subjects may be randomly assigned to receive a new treatment for minor pain while other subjects are assigned to receive a placebo. Random assignment is important both because of its widespread application in many sciences and its central role in frequentist or inferential statistics. The logic of random assignment can be helpful in the design of case study research.

Conceptual Overview and Discussion

Random assignment to treatment has three important and related inferential implications. First, everyone in the study has an equal probability of receiving the treatment. In the medical example, this means that every subject in the painkiller study has the same odds of receiving the placebo or the treatment as every other subject. Second, because everyone has an equal probability of receiving the treatment, after assignment of treatment there should be no statistically significant differences between the two (or more groups). In other words, those who receive the minor pain treatment should differ from those who receive placebos only in that they were randomly selected to receive the treatment. Although individuals will obviously differ, the important point is that the *groups* do not differ significantly. Third, as a result of this equivalency between groups any differences observed between the two groups can plausibly be attributed to the treatment.

Random assignment is effective because it overcomes selection effects and unobserved heterogeneity. As an example, assume a government department wanted to test the effects of two different income assistance programs on how long individuals remain on social assistance. If the department wanted to make strong causal claims about the program, it would randomly assign some recipients to receive Program A while the others received Program B. Any observed differences at the end of the study would probably be the result of the differences in the programs (provided the experiment was properly administered and designed). By contrast, if the government department had allowed individuals to self-select into one program or another, differences in outcome could be a result of systematic differences between the two groups. For example, the factors that lead an individual to choose one program and not the other may also be what explain his or her difference in reliance on social assistance. Such unobserved differences and/or selection effects make program evaluation significantly more difficult.

Random assignment can take several different forms. The three most common are (1) simple, (2) blocked, and (3) matched. In *simple random assignment*, subjects (which could be individuals, schools, cities, etc.) are individually assigned to

treatment or control. In a blocked randomization, subjects are first grouped together according to some characteristic of interest; for example, a researcher who was interested in the effects of a school voucher program on subjects from different ethnic backgrounds may first group or block subjects according to their observed ethnicity. Randomization would then occur within the group. Blocking is typically used when a researcher wants to determine whether a treatment has different effects on different groups (rather than a constant causal effect). Blocked treatments can lead to more precise or efficient causal estimates. *Matched randomization* is a special case of blocked randomization in which individual subjects are matched (most often in pairs) according to a matching algorithm that attempts to match subjects who are as similar as possible. Randomization then occurs between matched subjects. As with blocking, this results in more efficient or precise estimates of causal effect. The drawback of these methods is that they are often more difficult to implement.

Critical Summary

Random assignment in case study research can be very difficult. First, a small number of cases can make statistical hypothesis testing difficult. Without sufficient *statistical power*, a different inferential approach may be more fruitful. Second, proper random assignment almost always relies upon manipulation by a researcher. However, most case studies are observational, and the researcher has little involvement in the data-generating process. Accordingly, even when the differences between cases may appear random, they may be the result of an unobserved process. This makes the application of a random assignment and frequentist statistical framework difficult.

However, a researcher can sometimes identify a case or cases in which an assignment to treatment is random and not under the control of a researcher. For example, Chris Achen and Larry Bartels examined the effects of shark attacks in New Jersey in 1916 on that year's gubernatorial elections. Because the shark attacks were random and not a result of government policy, Achen and Bartels were able to compare differences in gubernatorial voting results between counties that had

experienced a shark attack and those that had not. Rational voters should not punish incumbents for events that are beyond their control; however, Achen and Bartels found that they do, even though the attacks were caused exogenously, or randomly. They concluded that voters are not retrospectively rational. They were able to establish this because seemingly random assignment produces a natural or quasi-experiment, which logically allows the same types of inference made in the case of true random assignment.

Peter John Loewen

See also Quasi-Experimental Design

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REALITY

The way the word *reality* as used in ordinary language appears straightforward and unproblematic. Most dictionary definitions take its unproblematic status for granted. *Reality* is defined as that which is real, the state or quality or fact of being real. It is something that constitutes a real or actual thing, as distinguished from something that is merely apparent.

Such definitions work well enough over so much of human experience that few people think to question them. Upon reflection, however, it becomes clear that these definitions beg the question. Reality is defined in terms of other forms of the same root word, or synonyms of it. This gives rise to questions such as: What does it mean for something to be real? What is the difference between an actual thing and a thing that is merely apparent? What does it mean for something to be authentic, factually based, true, actual, substantial, sensible, corporeal, tangible, or palpable? Such questions lead to open problems with which philosophers have been grappling throughout history.

There are *objective* senses, in which reality is taken to mean something that exists independently of how human subjects experience it, even regardless of whether anyone believes it to exist. However, there are also *subjective* senses of the word that are usually unproblematic in ordinary language and in the social sciences. *Reality* in such subjective senses refers to the reality of our minds. Conscious experience is widely accepted as something that is real. Reality may also be understood as what people believe to be real. Each person has his or her own private reality that is not reality for other people. Subjective reality may also be conceived of as shared among sets or populations of individuals, but at times it can be so unique to a person as to be never experienced or agreed upon by anyone else.

Conceptual Overview and Discussion

Reality Versus the Appearance of Reality

This distinction between objective and subjective reality may seem straightforward; however, at least since Immanuel Kant's Critique of Pure Reason the distinction has turned out not to be as simple as it might appear. Kant showed the assumption of a reality existing independently of any ideas about it to be highly problematic. We do not possess direct, unmediated knowledge of a real (noumenal) world. The real world does not write its properties directly to our brains. Instead, we construct the world as it appears to us through complex, mainly unconscious, processes of selection, perception, and interpretation. We perceive only signals to which our sense organs are sensitive, or that are relayed to us by means of theoryladen instruments such as microscopes and Geiger counters. Without theoretical understanding of how the output of such instruments is supposedly linked to the real world, their output will be meaningless. What is a signal to some may be noise to others, depending on their respective pre-existing theories, concepts, and levels of awareness. Things as they are in themselves (uninterpreted reality) are unknowable. For something to become an object of knowledge, it must be experienced, and experience is structured by our minds. Even apparently straightforward descriptions of physical reality must necessarily be in terms that are meaningful to human beings. What would a bat, which "sees" by a process similar to radar, think of an "objective" human description of a fog? In fact, common sense notwithstanding, there is no guarantee that a real world even exists.

Reality and the Problem of Knowledge

The problem of distinguishing the real from the merely apparent is intimately bound up with the more general problem of *objective knowledge:* A claim to know something about the world outside of consciousness is usually understood to mean that the claim is true or false regardless of what the claimant thinks or says. The problem of knowing whether a belief is true is thus intimately bound up with assumptions about the nature of the reality to which the belief refers.

If there is such a thing as reality existing independently of what people believe, then what accounts for the perennial human tendency to mistake what is merely apparent for what is real? Everyone gets things wrong at least some of the time. Great thinkers, entire societies, even entire scientific communities at least sometimes get things wrong. Dreams and illusions are only especially clear examples of far broader experience. Distinguishing what is real from what is only apparently real turns out to be difficult, if possible at all.

The Ancient Greeks made an important distinction between *episteme* (true belief) and *doxa* (mere opinion). In Plato's allegory of the cave, it is not reality that people know; instead all they know are the shadows that reality casts on the walls of the cave in which they live. Such a distinction between true belief about reality and mere opinion about reality is a thread that runs throughout the history of Western philosophy and science. There are substantial differences among explanations of why people so often hold mistaken beliefs about reality, yet a shared assumption persists that there is a reality that exists independently of any ideas about it. The term *objective reality* refers to ideas as

representing something. As such, these ideas have an "objective" ideational content that is the reality the idea is about and to which as an idea it refers.

Yet if there can be no such thing as unmediated, interpretation-free knowledge of a real world, the ancient and enduring distinction between *episteme* and *doxa* would appear to break down. All knowledge, even the hardest of scientific knowledge and taken-for-granted commonsense knowledge, would now seem to be mere opinion. Because the only reality we can know is the world as it appears to us, all of reality turns out to be, at its core, subjective.

Moreover, reality is an essentially contested concept. Although the term may be used in everyday life without too often running into difficulties, there are fundamental differences underlying the very usage of the word. Such differing views of the nature of social reality underlie approaches to social science research, including case study research. They mostly go unexamined. There is no simple or uncontested view as to what social reality consists of. Some people believe that society is nothing more than a network of interacting minds; in other words, that society can be reduced to the individual psychologies of those who constitute it. Others, in contrast, view society as being in some sense autonomous, of having emergent properties that cannot be reduced to the individual psychologies of those who constitute it.

The Social Construction of Reality

Peter Berger and Thomas Luckmann introduced the term social construction of reality into the social sciences. This refers to a process of meanings becoming institutionalized and embedded in society. Interacting persons and groups in a social system form mental representations of each other's actions. These become habituated into reciprocal roles. When these roles are made available to other members of society to enter into and play out, the reciprocal interactions are said to be institutionalized. In this process of institutionalization, meaning is embedded in society. Knowledge and people's conception (and belief) of what reality is becomes embedded in the institutional fabric of society. Social reality is therefore said to be socially constructed.

Benjamin Lee Whorf shows how the "real world" is, to a large extent, unconsciously built

up on the language habits of the group speaking the language. We do not find the categories and types that we isolate from the world of phenomena there because they stare every observer in the face. The world is presented in a kaleidoscopic flux of impressions that has to be organized by our minds, largely by the linguistic systems in our minds. The same physical evidence does not lead all observers to the same picture of the universe, unless their linguistic backgrounds are similar. Speakers of Chinese dissect nature and the universe differently from Western speakers, and groups of American Indians, Africans, and the speakers of many other languages make a still different dissection. The real world, not only the social but also the natural world, is thus socially constructed.

Critical Summary

Some critics (e.g., Ian Shapiro) argue that much of contemporary social science has lost touch with reality. Whether or not one agrees with such an assessment, it is probably safe to say that social scientists do not devote much attention to the issue of how well the products of their research correspond to reality. Although uneasiness about such questions can sometimes be detected in social science literature, they are typically regarded as philosophical and beyond the scope of empirical science. Nevertheless, all scientific research must presuppose some conception of reality. This is typically given by ordinary linguistic usage or by the paradigm in which research is carried out. Conceptions of reality are frequently at the root of disagreements, dead ends, and other difficulties in scientific research.

In genres of scientific research where variables can be artificially controlled, research questions surrounding the adequacy of underlying conceptions of reality can typically be deferred. In case study research, however, the situation studied, in all its richness and complexity, is given. Although the researcher may decide not to count certain features of a given situation as relevant, they can rarely be removed from the situation. Unexpected kinds of reality may impact the outcome of a study and therefore cannot be ignored.

Fred Eidlin

See also Constructivism; Depth of Data; Epistemology; Objectivity; Ontology; Phenomenology; Pragmatism; Scientific Realism

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REAL-TIME CASES

Real-time cases consist of investigations into particular phenomena as they are occurring. Many studies rely upon retrospective sources of data, such as reflective interviews, surveys, or archival documents, but real-time cases involve the collection of data as they are actually being generated.

Conceptual Overview and Discussion

The real-time case study approach has several inherent advantages over other research designs. First, it allows researchers to take advantage of emerging themes and unique case features by being flexible and opportunistic in their data collection and analysis efforts. Second, because data are collected in real time, reliance on participants' memory to build accounts of events that may have occurred several months or even years before is significantly reduced. Third, a real-time case study alleviates the bias of post hoc justification by participants who may wish to position themselves in particular ways in the narrative. Fourth, given that

the final endpoint of the research is unknown when the data are being collected, the researcher is less likely to be predisposed toward a particular outcome, decreasing the likelihood that competing or unusual solutions will go unnoticed or ignored.

Conducting research in real time provides researchers with the opportunity to make observations while events are unfolding. Observations are a perishable data source that cannot be utilized by researchers studying phenomena retrospectively. Thus, they provide a rich source of data from which to draw upon. This richness is augmented by the overlap of data collection and analysis. Real-time case researchers inevitably begin analyzing data while they are collected. If data are being collected in real time, these early analyses can facilitate adjustments during the course of the study, such as changing interview protocols or seeking new sources from which to obtain data. The real-time approach therefore provides a level of flexibility that retrospective archival investigations cannot.

When investigators use retrospective accounts of events it may be problematic to rely upon those accounts, because memories may fade and key events may be omitted and because when the outcome is known in advance the description of what transpired is often naturalizing or functional. A real-time approach can be used to alleviate all of these concerns. Interviewing participants as events unfold allows them to recount events that are fresh in their minds. Furthermore, observing events as they occur allows the researcher to construct a "rich" account of what took place. This rich account is what enables the researcher to compare the series of events that take place and examine "the roads not taken" in conjunction with the actual outcome. It is this richness that may eventually yield insightful theoretical statements.

When looking at events with the benefit of hindsight, individuals often tend to construct their own accounts on the basis of the socially desirable notion that their own actions led to favorable outcomes. Case research conducted in real time may reduce this bias because the outcome is unknown by the participants and thus positioning oneself on the right side of history is not possible because that history has not yet occurred. The uncertainty of the outcome also helps the researcher seek multiple explanations for a phenomenon and avoid a

tendency that is common when the outcome is known, which is to lock onto one plausible explanation and seek evidence to support that explanation. In this way, openness to multiple outcomes privileges researchers employing the real-time approach with the mechanisms necessary to generate rich theoretical descriptions.

Although a real-time approach offers the advantages just discussed, it also has inherent weaknesses. Researchers employing a real-time approach are embedded in the social system that is under examination, making the approach somewhat intrusive. This level of intrusion suggests that the researcher likely impacts the social system and therefore influences the findings that are emerging in the data. This issue can be dealt with in a variety of ways. By bringing organizational actors into the design of a real-time case study, including discussing what organizational phenomenon to investigate and how it will be investigated, the researcher may alleviate some of the problems associated with this closeness to the research setting that is natural with a real-time approach. The researcher should also explicitly acknowledge his or her biases and impact on the social system that such a close approach inevitably brings in the case write-up, thus allowing consumers of the research to make their own judgments regarding the impact of the researcher (or researchers) on the results.

Although real-time research offers a richness that a retrospective approach cannot, this richness may come at the cost of clarity. Researchers operating in real time often encounter difficulty in identifying what is and is not significant to the phenomenon of interest. Real-time research also often requires a significant investment in time and labor. Researchers must be present to make observations and do the work necessary to gain a full, rich understanding of the phenomenon of interest. This required physical presence can be considerably more time-consuming than an archival investigation. However, proponents of the real-time approach argue that the time spent in the research setting is more than offset by the quality of the empirical and theoretical insights generated.

Application

An exemplar of real-time case research is Sally Maitlis's investigation of the social processes of

sensemaking in British symphony orchestras. Maitlis observed that most research on sensemaking in organizations had focused on the ambiguity that arises during times of crisis or other situations in which high levels of reliability are necessary. Previous settings for such research included unique contexts in which a loss of sense has both dire and immediate consequences, such as flight decks and elite firefighting units. Furthermore, she observed that, despite the fact that sensemaking is an inherently social process, most of the extant research has focused on cognition rather than interpretation and interaction. Thus, she concluded that a lack of theoretical insight was present in regard to the social processes of sensemaking, in particular in organizations where the consequences of a loss of sense were neither immediate nor catastrophic. Drawing on this observation, she sought to identify how the social interactions of divergent organizational stakeholders underpin organizational sensemaking.

In an effort to elaborate theory, Maitlis used multiple data sources, such as interviews, observations, and documentary analyses in real time over a 2-year period. She utilized this prolonged immersion in the research setting to gain a rich account of how leaders and stakeholders give sense to organization members. Furthermore, given her own standing as an accomplished classical musician, Maitlis already possessed an in-depth understanding of the research site and credibility with the participants in her study. British symphony orchestras proved to be a highly appropriate setting for this research. To be effective, orchestras require social interaction between multiple stakeholders enmeshed in a web of interconnected relationships. Also, orchestras are organizations in which the consequences of a loss of sense have no immediate calamitous impact on the organization. Observations of how sense was given by stakeholders provided a keen perspective into the social processes and interaction patterns in the three orchestras. The realtime design allowed Maitlis to refine her approach as she became more engaged with the research setting. In analyzing the data Maitlis first wrote narratives that described the sensemaking processes in each of the three orchestras. Themes emerged from these narratives that became the basis for the findings of the study. What ultimately emerged was the identification of four distinct forms of organizational sensemaking, each of which was the result of some combination of varying levels of animation and control by key leaders and stakeholders. The identification of this typology empirically illustrates that sensemaking is neither a fully uniform process nor a set of wholly disparate processes; instead, sensemaking is a set of linked processes that are shaped by the animation and control of central leaders and stakeholders.

Critical Summary

As we have noted, the real-time case study approach has several distinct advantages over other research designs. Most notably, the ability to collect data in real time overcomes the inherent problems associated with asking participants to recall particular events, addresses the biases associated with retrospective accounts, and allows a flexibility of approach that permits engagement with interesting phenomena as they emerge. The major problem with this research design concerns the time it takes to follow events as they unfurl in real time. Such prolonged engagement can also lead to a pronounced influence on the research site by the investigators, although, as we point out, this issue can be acknowledged and addressed in different ways depending on the epistemological position of the researcher.

James Vardaman, John Amis, Maria Gondo

See also Longitudinal Research; Researcher–Participant Relationship; Retrospective Case Study

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RE-ANALYSIS OF PREVIOUS DATA

When analyzing qualitative case study data researchers have to determine their analytical focus and

present their data in a way that facilitates the most persuasive presentation of their argument. In this process they cannot always use all the analytical opportunities provided by the data. However, the whole case, or part of the data, can be reanalyzed for a different purpose and within a conceptual framework that could not have been included in the initial analysis without distracting from its focus. When reframing a whole case, the researcher offers an alternative way to understand the focal issues, one that questions and revises the original analysis. When re-analyzing selected parts of the case the researcher expands the analysis or uses particular data to explore issues not examined in the initial analysis. This re-analysis can be seen as an extension of the ongoing framing and reframing processes that are integral to qualitative data analyses. Thus, there is no expiry date on the data as long as the insights generated by the re-analysis are relevant for thinking about current issues and realities. Multicase design provides unique opportunities for data re-analysis, because the analysis of each case may be revisited on the basis of the analysis of other cases, in particular when more than one researcher is involved in the study. The following section offers two examples demonstrating the re-analysis of selected data from a case study on interorganizational relations.

Application

The Initial Study

Eli Teram studied the commonalities and differences between interorganizational relationships at different hierarchical levels in social service organizations. This issue was explored through a case study of a network of organizations working with children and youth in Montreal, Quebec, Canada, in the early 1980s. The analysis of the data focused on the selection of "good" clients by the institutions in this network and the interorganizational structures and processes that facilitated and maintained this selection. During the data collection period the structure of the interorganizational placement committee established by the network changed twice. The researcher organized the analysis in relation to these changes, demonstrating that although the structural alterations affected the negotiation opportunities available to participants, the outcome remained the same: Children's problems and needs were redefined to fit the available resources and to accommodate the institutions' interest in "good" clients. Another aspect of the analysis compared the processes used by two institutions to render the external review of children's placement meaningless, thereby allowing these organizations to retain clients even when their placements were inappropriate. These two themes complemented each other: The first theme explained how the institutions recruited desirable clients, and the second theme clarified how the institutions retained desirable clients. Within a critical framework, the case study considered the powerlessness of youth in trouble as the underlying condition that facilitated these processes.

Re-Analysis of Particular Data

The Emotional Labor of Social Workers

The decision to re-analyze a particular aspect of the data was driven by the realization that the initial analysis of the case was incomplete. Although the initial analysis focused on the actions of organizational actors and the consequences of their actions, it did not consider the emotional aspects of their work. Influenced by Arlie Hochschild's book The Managed Heart, Eli Teram revisited and reassembled part of the data to explain how the social workers in his study managed their emotions regarding their involvement in placing children into inappropriate programs. In the worst cases, the social workers participated in redefining children's needs and problems in a way that channeled them into readily available locked facilities. Workers' participation in processes that clearly contradicted social work values could not have occurred without generating strong emotions; thus, the re-analysis of the data with a focus on the way social workers manage these emotions was relevant to understanding the perpetuation of client selection processes.

The re-analysis of the data identified two ways that social workers managed their emotions. At one extreme, some workers considered the referral of children to institutional care as failing these children. The admission of personal failure in these cases predisposed referring workers to accept placements that constituted a dramatic departure from their initial ideas about the child's problems

and the program required to deal with these problems. For these workers, admitting failure was the ultimate escape from responsibility, because whatever happened to a child was beyond their control. It was also the highest emotional price one could pay, and therefore no other dues could be expected after one admits having failed a client. At the other extreme, social workers and other organizational actors imagined themselves as omniscient predictors of children's behavior. These workers developed defenses that buffered them from the emotions resulting from placing children in a locked facility when a more suitable open community program was unavailable. They "knew" with certainty that these children would turn into "locked units kids" if they were to wait for an appropriate program to become available. Alternatively, these workers justified their actions by suggesting that when children exhibit predelinquent patterns of behavior they are bound to become delinquents requiring locked facilities.

Although the re-analysis was as critical as the initial analysis, it considered the actions of social workers within the incompatible demands made on them by the child welfare system in the Canadian province of Québec. The analysis concluded with a call for collective action to document and publicize the compromises social workers have to make.

Interdisciplinary Negotiations and the Control of Clients

In the initial analysis of the case, the dynamics of interdisciplinary teams were examined in terms of their effect on social workers' ability to protect children's rights, in particular around the appropriateness of institutional placements. More than a decade later, Eli Teram became interested in how interdisciplinary teamwork enhances the ability of organizations and professionals to control clients. He wrote a theoretical case study demonstrating how team members working in community programs collaborate with each other to more effectively control clients with developmental disabilities. The analysis concluded with the suggestion that the benefits of interdisciplinary work be evaluated against its potential to intensify the control of clients.

With this new understanding of teamwork, Teram revisited his account of team dynamics that contributed to compromising the rights of youth in

trouble. The initial analysis was now used as a starting point for discussing a specific element of interdisciplinary negotiations: exchanges related to the control of clients. The new analysis suggests that, in a system that uses predefined criteria for rewards and punishments for specific behaviors, negotiations around the control of clients lead to inconsistencies in the application of policy. These inconsistencies prevented children from expressing their wishes and preferences through their behaviors. Thus, for example, a child who intentionally misbehaved to eliminate the possibility of "earning" a home visit may be sent home as an outcome of the social worker's negotiation with the team. This reanalysis of the data argues for the establishment of organizational policies and priorities that minimize negotiations between team members around the control of children's behavior. In the absence of such policies social workers are urged not to make the control of clients a topic for negotiation. Although social workers may win in particular cases, the overall outcome of these negotiations enhances the control of clients, may be confusing for clients, and does not benefit clients as a group.

Critical Summary

Re-analysis of data builds on the multidimensionality of the data and recognizes the inability of one conceptual framework to capture the richness of qualitative data. The knowledge that data can be revisited may help researchers concentrate on the analytical focus of their study, without diverting to mini-analyses that may hamper the effectiveness of their presentations. Data re-analysis can be useful for generating greater insights by viewing the same data through new conceptual frameworks that either had not yet been developed or were unknown to the researchers when initially analyzing the case study. Re-analysis of data may also be useful for expanding the analysis of the original case, as demonstrated in the first example, or facilitate a conceptual exploration not directly related to the initial analysis of the case, as demonstrated in the second example.

Re-analysis of the whole case is more challenging than re-analyzing selected aspects of the case. Because information is typically collected and analyzed within a particular paradigm, a significantly different perspective on the case may require new data or

a shift in the framework used by the researcher in the initial analysis. For example, Teram could have reanalyzed his case by shifting from a critical to a functionalist perspective. In the latter perspective the focus would have been on the structural shortcoming underlying the client selection processes and the identification of organizational change strategies. However, like many other researchers, he was not willing to or capable of making this shift, and he limited his efforts to re-analyze part of the data within the paradigm that guided his initial analysis. Although the difficulty of shifting between philosophical frameworks may constrain the re-analysis of the whole case study, this limitation can be overcome by research teams that bring together researchers with different perspectives.

Eli Teram

See also Case Within a Case; Integrating Independent Case Studies; Qualitative Analysis in Case Study; Within-Case Analysis

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REFLEXIVITY

Reflexivity is the process of becoming self-aware. Researchers make regular efforts to consider their own thoughts and actions in light of different contexts. Reflexivity, then, is a researcher's ongoing critique and critical reflection of his or her own biases and assumptions and how these have influenced all stages of the research process. The researcher continually critiques impressions and hunches, locates meanings, and relates these to specific contexts and experiences.

Critical Overview and Discussion

The intellectual work in case study research involves researchers in making meaning based on observation. Researchers are part of the world they study and thus are closely involved in the process and product of the research. By being reflexive, case study researchers self-critique their frame of reference, cultural biases, and the ethical issues that emerge in field work. Reflexive case study research also requires researchers to demonstrate in their written reports and conversations their interactions with participants, from initial contact to when they leave the field. This makes visible not only the knowledge that was discovered but also how it was discovered. This transparency strengthens the rigor of case study research and enables the researcher and reader to ascertain the validity of the study results.

Techniques for documenting the researcher's reflexive process might include, for example, keeping a reflexive journal, which should show the researcher's study-related decision-making processes. The reflexive journal can also be used to make explicit the researcher's prior understandings about the research. After data collection, these preunderstandings can be checked for accuracy or inaccuracy when compared with the transcribed interviews. Being more transparent about their presence in the research requires that researchers step out from behind the wall of anonymity.

From an ethical standpoint, case study researchers need to be sensitive to cultural, class, race, and gender difference. Reflexive case study researchers engage in a critical consciousness whereby their position of power relations in society and within the research–researcher relationship is unveiled. Reflexive case study researchers also attend to an ethic of care for those who participate in the research. Researchers acknowledge and reflect upon their obligations and care for participants

but demonstrate these through engaging in mutual dialogue and understanding.

Application

Reflexivity is operationalized when researchers can articulate their awareness of the interconnectivity between and among themselves, the participants, the data, and the methods they use to interpret and represent their findings. Natasha Mauthner and Andrea Doucet, in their study of postnatal depression, began analyzing their interview data by recording their emotional and intellectual responses to the words of the participants. The researchers then discussed the role that their personal and academic histories had on their responses and thus on their interpretations of the participants' comments. Once each researcher was more aware of the various influences, they could balance their accounts by examining the difference between their interpretations and those of people with different biographical influences.

John Michael Roberts and Teela Sanders compared two ethnographic case studies to illustrate dilemmas from entering the field to leaving it. Roberts's study explored individuals' perceptions of the "Speakers' Corner" in Hyde Park, London. Individual interviews were conducted with past and present speakers, members of the police, and employees of the Royal Parks Agency. Roberts also engaged in activities at the Speakers' Corner and obtained archival data about the Speakers' Corner from archive centers in London. Sanders's study, on the other hand, focused on occupational risks for women in the sex industry and how women managed these risks. Sanders observed a number of contexts, including sex markets, licensed saunas, the street, and brothels. Informal conversations were conducted with more than 200 women; more formal conversations took place with another 55 women, including managers and owners of indoor sex businesses.

In reflecting upon their research, Roberts and Sanders acknowledged how each researcher's personal biography had influenced their negotiation processes for accessing participants. For example, Roberts's father had been a regular speaker at the Speakers' Corner and was well known locally; this history served as a gatekeeper function for Roberts. However, this familiarity led some

Speakers' Corner regulars to view Roberts as a friend, which compromised Roberts' independent researcher role. Furthermore, Roberts, in his reflexive process, uncovered some of his assumptions that free speech was a right at the Speakers' Corner: These assumptions proved incorrect after data collection revealed that some people were excluded from this right. Sanders had lived near two saunas that ended up being key sites for data collection. Sanders admitted to having preconceptions about her topic from casual observations of men and women who entered the sex establishments. As another example, Sanders acknowledged the importance of some self-disclosure in the research relationship to establish rapport; however, she was not prepared for the intimate questions that participants asked of her. She avoided mentioning her social work experience to participants because of negative connotations participants had about social workers and social control. Sanders's reflexive accounts continued following field work that contributed to new intellectual and emotional understandings of the research experience, including shifting power structures she had encountered.

Critical Summary

Reflexivity is an issue in establishing the quality/validity/trustworthiness of findings, in ethics, and in addressing power imbalances in a case study project. Researchers are advised to declare their stance pertaining to the topic and to participants; this includes laying out their preconceptions and biases so that readers might consider the findings in light of researchers' particular situatedness in their life story and its circumstances.

Deborah L. Begoray and Elizabeth M. Banister

See also Cultural Sensitivity and Case Study; Subjectivism

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REGULATING GROUP MIND

What do the following phenomena have in common: the Pushtan honor code, the Spanish Inquisition, female genital mutilation, and academic mobbing? Each variously expresses the syntax of the regulating or ruling group mind (RGM). The RGM is a screening system of thought that is defined and recognized by a distinguishing set of properties across cultures and macro-micro cases: (i) a ruling set of group presuppositions that are conceived to be (ii) as given as the structure of the world and (iii) demand the compliance of each for collective survival so as to (iv) frame social ideation and communication to (v) select only for what confirms this order and to (vi) block or invalidate whatever does not to (vii) generate stereotypes or myths as replacement standards that (viii) only enemies or inferiors reject who (ix) are variously attacked to sustain or extend the group's ruling value program. Although this set of characteristics is diversely expressed and admits to polar degrees of rigidity and extreme of harm by its operations the RGM is a discrete unitary mechanism whose interlocking operations constitute (x) a defining mind-set of mutual understanding and self-identity of all group members. Although RGM formations are invariably confused with necessary and beneficial social order, this set of diagnostic criteria identifies the syntax of distorted regulators. Without its analytic resource, this often life-destructive disorder is left to conflicting pro-con interpretations without grounds of principled recognition and resolution.

Conceptual Overview and Discussion

What distinguishes the RGM from early comprehensions of the "group mind" by Gustave Le Bon,

William MacDougall, and Sigmund Freud is that these conceptualizations confine their referent to crowds, which are volatile phenomena and not normalized in outlook, although they display RGM properties in inchoate form. Although Freud himself seeks an underlying order to crowd phenomena as prototype social orders in his *Group* Psychology and Analysis of the Ego, his explanation reverts to the ancient myth of a primal horde's murder of the clan-father as an originary collective crime that leads to social organization for mutual self-protection of the survivors ("civilization"). Freud's analysis sets a pattern in case study methodology that fails to distinguish between group organization providing cooperative life protection and group organization perverted from this function by the life-blind RGM mechanism. R. D. Laing, in stark contrast, emphasizes perversions of received group orders, most specifically the received normal order of the family as a "holocaust on the altar of conformity." Yet Laing's illuminating dramaturgical model of "inter-generational mapping of family roles" does not provide criteria whereby to recognize a regulating disorder in this mapping of roles.

Application

The microconcept of "groupthink" associated with the work of Irving L. Janis, Groupthink: Psychological Studies of Policy Decisions more specifically isolates a decision-making dysfunction of a small and elite group of strategists whose plans ostentatiously fail—his principal case study being of the National Security Council's ill-fated decisions for the U.S. Bay of Pigs invasion of Cuba. Although there are common operations at work here—a priori moral certitude of cause, stereotyping of opposition, and compulsive rationalization of disastrous consequences—the inside groupthink of a closed committee producing an operational fiasco on the world stage does not penetrate the depth of the RGM mechanism that is typically routinized within a wider social context. Only criterial diagnosis by Properties (i) through (x) enables clinical identification of this deeper lying structure of group compulsion. The secretively top-level and failed decisions that Janis and his coresearchers examine are better understood as expressions of a wider group-mind mechanism where blind "patriotic" identification lends support to armed aggressions against noncapitalist governments in "our backyard." Janis's model may itself symptomatize a society-wide RGM by isolating for case study a closed elite's plans that fail to be successfully operationalized.

In general, RGM analysis provides explanation to dramatic cases of collective dysfunction that do not otherwise make sense. Its criteria of diagnosis apply most interestingly to conventions and practices assumed as functional and normal—for example, a business corporation, society, or the world conceived as rightly ruled by a higher necessity to which continuous sacrifices of life interests must be made to keep it running efficiently and well. The RGM mechanism is, most disturbingly, demonstrated in sustained and well-organized collective behaviors that are mass homicidal. Exactly administered witch hunts systematically pursuing and destroying countless individuals over centuries in the name of "purging evil superstitions" and "saving the innocent" (as in the ecclesiastical handbook Malleus Maleficarum, which was applied from 1446 to 1669) are a paradigm case. These large-scale RGM phenomena are disquietingly frequent across civilizations and eras but lack the unifying, criterial diagnosis required for understanding and prevention. Genocides of foreign or alien peoples in the name of divine sanction or necessary defense, enslaving of other cultures or races as uplifting them in the name of civilization, subjugating women to beast-of-burden status as natural and virtuous social order across millennia, and systematic sacrifice of environments and countless people to "modernization drives" are confirmable RGM disorders insofar as they exhibit Operations (i) to (x). They may continue over long periods as well as historically brief interregnums, and they may be apparently consensual as well as dictated from above.

Yet murderous mass behaviors are only the most spectacularly repugnant of RGM phenomena. The life-blind RGM mechanism as detected and tested by these criteria may also be at work in commonplace structures of group assumption—for example, in the militant, worldwide and often violent do-or-die battles between groups distinguished only by their sweater colors, or etiquettes without function that decide in-group or out-group status in sanctified oppositions (a propensity

Jonathan Swift satirized as religious wars between "big-enders" and "small-enders" in the consumption of boiled eggs). Wide variations of harmful and fanatical expression—from neighborhood gang conflicts to ecogenocidal wars—conceal the common mechanism at work across levels of phenomena.

The possibility of even modern scientific communities being governed by RGM mind-lock is fastidiously tracked in microcosm in Ludwik Fleck's 1929 classic Genesis and Development of a Scientific Fact, a monograph that investigates the scientific labeling of a single "disease entity," the organic disorder known and feared as "syphilis." To crystallize Fleck's detailed analysis into five regulating principles of explanation, the distinct moments of cognitive block are (1) any contradiction to the received system of understanding is unthinkable; (2) what cannot be fit into the ruling thought system remains unseen, or (3) is kept secret, or (4) laboriously explained so as not to contradict the given assumptions; and (5) and admits contradictory views into conception only to substantiate current views. As with Thomas Kuhn's much better known but less exact The Structure of Scientific Revolutions, only the group-mind phenomena of formal science are exposed to diagnostic study. In such sanitized isolation, the RGM mechanism's wider social regulation and life-blind expressions are blinkered from view, although they follow a similar pattern of cognitive blocking with far graver consequences. Fleck lived in Nazi Germany and Kuhn in McCarthyite America, for example, but both ignore these wider social levels of phenomena and the fateful mechanism at work that may more easily and ruinously emerge than in scientifically screened domains.

When evolutionary supersession of a society-wide RGM structure takes place, it typically follows a pattern of *negating* RGM operations—the reversal that forges the path of resolution of any RGM disorder. The abolition of the slave trade, progression toward equal rights of women, and institution of international criminal law to govern states are general cases in point. They may be understood as processes ruling out RGM operations step by step—reframing social ideation and communication to recognize the harms rather than deny them, demonstrating the false nature of myths and regulating stereotypes sustaining the

mechanism, recognizing the defeasibility of the structures of oppression formerly assumed as certain and lawlike, and otherwise detecting and denormalizing RGM operations. What has long been lacking in case study research is well-defined comprehension of the RGM mechanism to provide rigorous technique of diagnosis and response.

RGM disorders and countermovements to them can often be traced to deciding moments of formation or rejection. Just as the Nazi rise to power can be usefully located in the February 27, 1933, Reichstag fire and its pretext for national emergency legislation acceptable to the public (originally claimed necessary to crush a falsely alleged Communist plot), so, conversely, the London meeting in May 22, 1787, of 12 Quakers adopting the cause of abolition of slavery might be seen as the initiating moment of the abolition of long-accepted global free market trade in human slaves. Once formed, RGM mechanisms die hard—both in the microcosm ("the office") and the macrocosm (a dysfunctional national or international cult of system necessity). Yet continuous examples of breaks from RGM possession show the choice space that is blocked out by its normalized hold—for example, the gradual social adoption over centuries of nonbleeding, antibacterial and empirical methods led by persisting isolated physicians in the face of medical establishments decrying their deviations; or, more recently, releases and government investigations of cigarette corporation documents showing the morbidity and death effects of a major-revenue business long sustained by commercially instituted RGM operations of sexually attractive smokers and repression of scientific evidence of disease causation. Life-blind RGM operations can be deliberately fostered by powerful vested interests in their normalized continuance, and they have, over centuries, but they are only mistakenly equated to these powerful interests, a standard fallacy. For these interests may continue to be powerful, and yet the RGM serving them may be overcome by cooperative intelligence. Whether at the micro- or macrolevel, RGM operations are usually supersedable by continuous exposure in the evolution of social understanding.

With electronic information pools available in nanoseconds, case studies of the RGM mechanism have unprecedentedly rich and available databases

from which to draw, yet the mechanism's operations block out relevant inquiry into them. This closure itself indicates the mechanism at work. Without diagnostic investigation by tools such as relevant questionnaires or data tracking for verification/disconfirmation, apparently normal judgments may be RGM governed with no one noticing within the closed meaning spaces of the ruling thought system. No one that we know of, for example, flagged the RGM phenomenon of centuries-long certitude about the "discovery of America," although millions of people had already lived in and explored its continent over tens of thousands of years. The underlying assumption producing this certitude was that only Europeans are human beings, and it was as unquestioned as the RGM operations building on it. Given such a regulating premise of understanding, a set-point of meaning and value was fixed from the first contact on. Thus, no crime but rather bravery was perceived in the systematic eradication of entire peoples and their ways of life because they were deemed inhuman—a standard assumption of military war campaigns. Throughout centuries of this RGM rule and others, the humanity of the victims is blocked out; opposition is mocked, demonized, or unspeakable; and so on through all the RGM operations.

RGM operations are an interlocked and unseen normative syntax that can be confirmed or disconfirmed in any instance by application of the criteria. Cases of sexism, homophobia, and ethnic and national hatreds, for example, variously express the mechanism, as testing through each prejudicial construction shows. If any does not qualify under RGM criteria, then there is reason to question the application of labels of "racist," "sexist," "anti-Semitic," "homophobe," or whatever. The operations identify the phenomenon from the inside, providing a setpoint test across sectarian conflicts and unresolved issues—an invaluable tool when these categories are contentiously deployed or denied. Wherever research discovers any framework of judgment expressing the RGM syntax of apprehension and judgment, it is uncovered by the appropriately posed questions to disclose the regulating operations of the mechanism: life-blind and exclusionary identifications, blocking out of contraindicative facts, assumption of the moral superiority of the in-group, and so on. The RGM mechanism can thus be diagnostically confirmed or disconfirmed in any case regardless of how consensual and militant in certitude the thought system may be supported in the surrounding microculture or macroculture.

Critical Summary

The methodological problem in general has been failure to apply an articulated diagnostic framework required to test for the interlocking operations beneath ideological disputes, propagandist categories, and political rhetorics. "Anticommunism" was long such an RGM phenomenon in Western societies, with the motto "Better dead than Red" echoing "The only good Indian is a dead Indian" of an era before. With each destruction of a designated Enemy, however, another may take its place without identification of the RGM syntax of delusion. Thus, after 1991 and the fall of the "Evil Empire," the same generic RGM operations reappeared in a different form. The post-2001 official "War Against Terrorism" followed the RGM pattern with even demonstrators against international trade treaties subject to labeling and prosecution as "terrorists." An interesting case for study in the third millennium has been the official conspiracy theory of the event precipitating this RGM turn—the September 11, 2001, atrocity and its "war without end" aftermath that exhibited the hallmark operations of the mechanism. Armed invasions and occupations bombing civilian populations and infrastructures, selection of facts to suit the ruling story and exclusion of facts, stereotypes and myths replacing impartial standards of truth and moral judgment, presupposition of the overriding goodness of the cause, and-most distinctivelymounting destruction of lives and resources are observable symptoms of the mechanism at its most militant. Whatever the dramatic variations of expression, the RGM mechanism is a unifying explanatory constant. When it governs opposing sides in mirror-opposite operations, they do not cancel each other out but intensify and spread the regulating disorder across cultural divisions. "Propaganda wars" denote this mirror-image phenomenon, but again without any criteria to distinguish the systemic operations that constitute the disorder. Again, indication or contraindication of the mechanism is established by criterial application of Operations (i) to (x).

Other explanatory frameworks that have been deployed to explain the RGM phenomenon are, in contrast, unable to identify its regulating syntax or distinguish it from rational opposition and conflict. For example, explanation by "the economic base" and its "ruling-class anatomy" rejects diagnosis by internal regulators in principle; moreover, it cannot explain anti-economic group phenomena in which an RGM selects for productive force destruction as well as exposure of ascendant class interests to aroused opposition and functional destabilization (e.g., by failed belligerent wars supported by the masses). On the other hand, Antonio Gramsci's concept of a social hegemony cannot decode the RGM disorder because it is grounded not in the prestige of a productive class but rather blindness to common life interests. Pierre Bourdieu's collective concept of habitus can no better identify the mechanism because habitus is rooted in specific practices or locales and is not defined by any RGM operations. Psychoanalysis may seem the most promising approach, but without this diagnostic tool cannot empirically track or explain the RGM phenomenon because it is not a disorder of the individual psyche.

The RGM mechanism is likely rooted in the primeval repertoire of the human-group animal to ensure unity in the face of dangers, according to David Berreby. Yet this repertoire can and has evolved in rational ways that attend to real dangers and secure the lives of members against actual threats, whereas the RGM is a "life-blind groupism" that violates standards of empirical rationality and shared interests. Only when the operations of this mechanism are tested for does case study research have an impartial diagnostic framework to connect and explain otherwise-anomalous and senselessly harmful group dynamics.

John McMurtry

See also Community of Practice; Consciousness Raising; Contextualization; Critical Sensemaking; Discourse Analysis; Formative Context; Juncture

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RELATIONAL ANALYSIS

As with other approaches to qualitative and quantitative research methods, relational (content) analysis is concerned with understanding or measuring verbal or nonverbal communication messages (or the exchange of information between a sender and a receiver). Such communication can exist in various forms (e.g., campaign/political speeches, classroom discussions or written assignments, documents including records or patients' charts, interviews). Mike Palmquist has discussed three variations that exist in regard to how

researchers go about examining the relationships between concepts:

- 1. Some investigators proceed on the basis of the explicit emotional tone of the concepts for a given time and specific societal segment; this basis represents an *affect extraction approach*.
- 2. Other researchers use what Palmquist refers to as *proximity analysis*, that is, identifying relationships between those concepts that tend to occur together. A recent illustrative example from the mass media would be how the concept of hope was conveyed in the phrase "Yes we can . . . change."
- 3. A third approach used by researchers to analyze the relationship between concepts is *cognitive mapping*, which involves the creation of a framework (or model) for the entire text that will lend itself to a statistical and automated analysis of the changes in the meaning of the concepts through physical and temporal time and space.

An illustrative example of the third approach to relational analysis is the work of Palmquist and his colleagues. They use the term *relational analysis* to refer to their approach to mapping people's conceptual understanding of specific knowledge domains and, in the case of texts, of mapping the relationships between key concepts established by the authors in their work. Palmquist's use of a range of computer programs has afforded him, and colleagues like Kathleen Carley, to conduct quantitative analyses of very large quantities of text.

Conceptual Overview and Discussion

In contrast to the traditional approach to content analysis used by folks like Bernard Berelson and Ole Holsti, whereby only the existence and frequency of similar words or phrases (i.e., concepts) in a text were coded, in the 1990s a second type of approach for such textual analysis arose. This recent approach to content analysis builds on the former analytical strategy by examining not only the pattern of concepts in the communication/message or text but also the relationships between

such concepts. Whereas the former approach is labeled conceptual analysis, the latter approach is what Palmquist refers to as relational analysis and what his colleague Kathleen Carley has named map analysis. She acknowledges the range of alternate terms that others have used in lieu of relational analysis or map analysis, such as cognitive mapping, cognitive network analysis, frame analysis, mental model analysis, meaning analysis, relational meaning analysis, and scheme analysis. Carley also indicates that relationships may differ along the following four dimensions: (1) strength (e.g., like vs. love: one is stronger than the other), (2) sign (e.g., friends vs. enemies; concepts that are positive vs. those that are negative), (3) direction (e.g., mothers love their children; children love their mothers), and (4) meaning (e.g., different types of relationships, e.g., between people or between possessions).

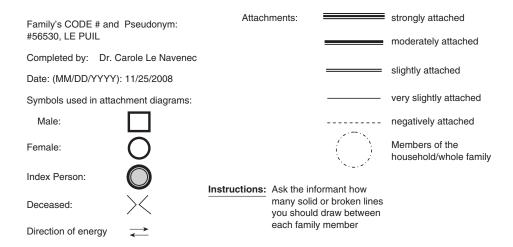
There are several advantages and disadvantages to relational (content) analysis vis-à-vis conceptual (content) analysis. As Carley has noted, map analysis creates concept families (which is our translation for her phrase networks of concepts or situated concepts) that can subsequently be examined at both a graphical and a statistical level. Such an approach allows qualitative researchers to complement the steps they take to ensure trustworthiness and credibility of their study along with the added precision that some statistical methods afford. A second advantage of the map analytic approach for doing relational analysis is related to its strong theoretical foundation. She contends that the guiding theoretical frameworks for such studies were derived from linguistics, cognitive science, and mental models. By contrast, two disadvantages of relational (content) analysis are that (1) it does not always include a discussion of the contextual characteristics of the setting or situations in which the communications via texts or transcripts arose, and (2) some of the software packages may constrain the number of coding choices for the analyst.

In recent years, there has been a broader range of variation in approaches to both relational and conceptual (content) analysis by researchers from a vast range of disciplines. This conclusion is inferred from the titles in the table of contents of Klaus Krippendorff and Mary Angela Block's 2008 edition

of The Content Analysis Reader, such as: "Quantitative Semantics"; "Interaction Process Analysis"; "Quantitative and Qualitative Approaches to Content Analysis"; "Propaganda Analysis"; "Modes of Observation and the Validation of Interaction Analysis Schemes"; "Comparing Human Coding and Computer Assisted Methods"; "Codebook Development for Team-Based Qualitative Analysis"; "Petitions and Prayers: An Analysis of Persuasive Appeals"; and a range of studies involving computer-aided content analysis, such as the study by Palmquist and Carey and their colleague Thomas Dale on analyzing literary and nonliterary texts. In addition to Krippendorff and Block's overview, an informative discussion on three types of qualitative content analyses approaches (i.e., conventional, directed, and summative) is provided by Hsisu-Fang Hsieh and Sarah Shannon.

Application

Although the many approaches to relational (content) analysis mentioned in the previous discussion could presumably encompass qualitative studies, many of them appear to be quantitative in nature and represent how one could perform large-scale statistical analyses using a range of sophisticated computer programs and/or databases. This section discusses the way relational analysis has been incorporated into the qualitative family research methods used by Carole Le Navenec in her research program that uses a multiple case study design to explore the managing styles of older families who are experiencing a chronic illness such as dementia, stroke, or traumatic brain injury. The guiding theoretical frameworks used to understand relational communication include concepts from family ecological theory and Lorraine Wright and Maureen Leahey's family systems nursing perspective. Such perspectives depend on a couple of assumptions. The first is that families differ in terms of how they perceive and respond to demands during various points in time during an illness experience. Whereas some families will seek out information and share their feelings with others (what Le Navenec refers to as families who have an open style of managing), other families do not (i.e., they display a closed style of managing). The second assumption is that



Attachment Pattern Diagram (APD) for Le Puil Family [Pseudonym]

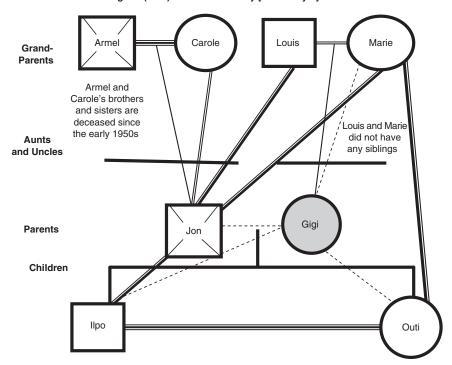


Figure I Attachment pattern diagram for a family with an open style of managing. The relationships depict the nature of the connections within the nuclear and extended family

Source: The format used for these diagrams is based on the work of Lorraine Wright and Maureen Leahey (2005).

Notes: Comments to support inferences (based on information from Ilpo and Outi).

- Strong to moderately attached relationships existed between both sets of grandparents and between the late Jon and his mother, Carole, and his father-in-law, Louis.
- The children, Ilpo and Outi, considered that their dad, and they themselves, did not get on well with their mother Gigi.
 Apparently Gigi had violent anger outbursts ever since her epileptic seizures began 15 years ago. She had been in and out of psychiatric hospitals.
- Since the death of the grandfather, Armel, 3 years ago, Carole has severed all connections with their son, Jon, and the rest of the family.
- The children, Ilpo and Outi, consider that they have a strong positive relationship between themselves and a moderately strong relationship with their maternal grandmother, Marie. Unlike her spouse, she apparently is "not living only to make money and has time for us. So we visit her about twice a month" [Ilpo].

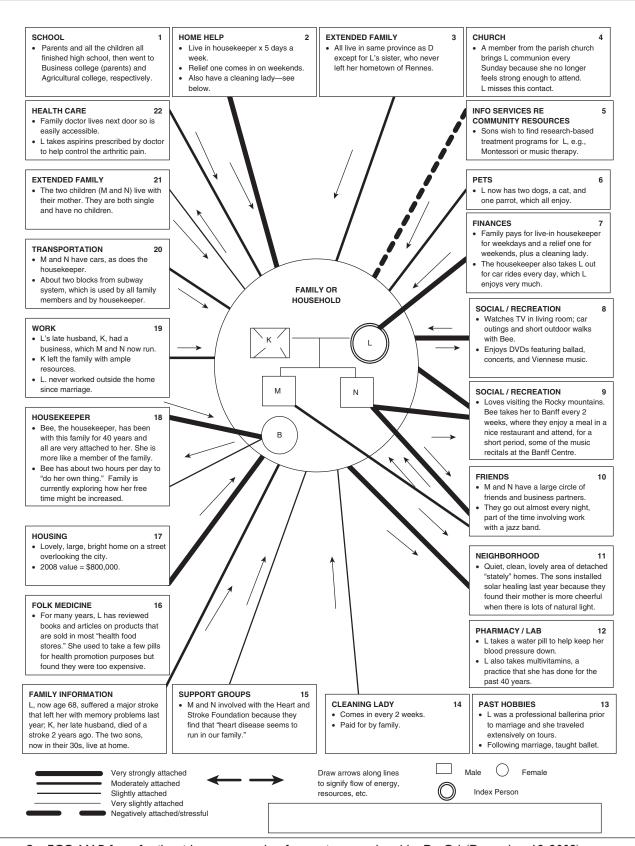
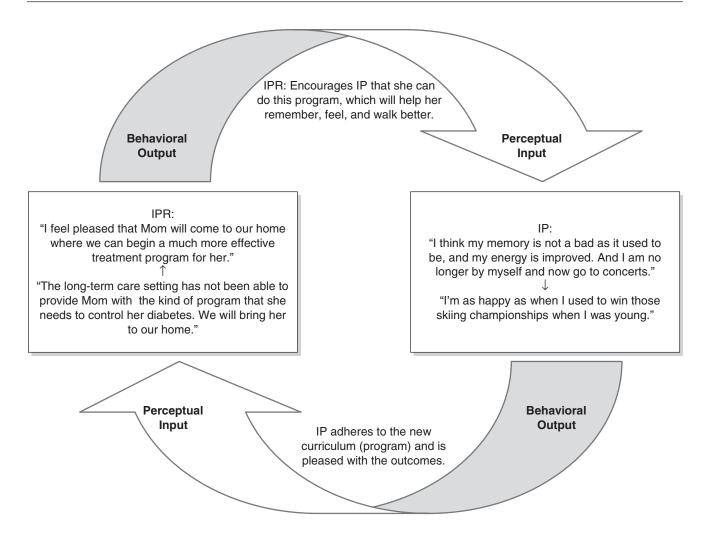


Figure 2 ECO-MAP for a family with an open style of managing completed by Dr. Cal (December 18, 2008)

Source: This ECO-MAP is a modified version of those developed by Hartman, 1978 © Le Navenec 1993 (cllenave@ucalgary.ca) (www.ucalgary.ca/cait).



- Key: Data in the squares pertain to the types of inferences (cognitive or affective, or both) that are made by the researcher/clinician regarding the definitions of the interactants (which is to be validated with the participants following completion).
 - Data below the arrows represent the behavioral responses of the interactants. The mutuality of effects of the interactants on each other is indicated by showing how the behavioral output of one interactant becomes the perceptual input for the other in a circular way.

IP = Index person or patient (specify pseudonym): Madame Le Thiec

IPR = IP's relative (specify relationship and pseudonym): Niece, Madame Kerhueil

Date completed (specify MM/DD/YYYY): 11/25/2008 Signature of person completing it:

Figure 3 A circular communication pattern diagram for a family with a closed style of managing

Notes: The format for the CPD used by Carole-Lynne Le Navenec (cllenave@ucalgary.ca) is based on the Calgary Family Assessment and Intervention Model developed by Lorraine Wright and Maureen Leahey, who were also associated with the University of Calgary, Faculty of Nursing for many years. For background information on the value of the CPD for understanding relational communication analysis in families, including the difference between an open and closed style of managing in chronic illness family contexts, see Le Navenec, C., & VonHof, T. (1996), One day at a time: How families manage the experience of dementia. Westport, CO: Greenwood Publishing Group–Auburn House.

each member of the family affects the others in a reciprocal, circular fashion.

Three types of visual gestalts (or graphic representations) that Le Navenec has used for more than a decade to graphically portray the nature and quality of three areas of relationships that these families can be briefly summarized as follows.

Internal relationships refer to the family's connections with members of the nuclear and/or extended family. Attachment pattern diagrams are the visual gestalts used to depict the nature of relational communication in these contexts. In Figure 1, an attachment pattern diagram is outlined for the Le Puil (a pseudonym) family, who demonstrated moderately close ties (relationships) with each other and represent, from a family systems perspective, an open style of managing during their illness trajectory. In their book One Day at a Time: How Families Manage the Experience of Dementia, Carole Le Navenec and her colleague Tina Vonhof describe how such families differ from closed-style families in terms of seeking information and support and sharing feelings, both within and outside the family system.

The term *external relationships* refers to the nature and quality of the connections that families have with their extended family, friends, neighbors, community groups, or agencies, or assistance from the formal care system. *Ecomaps* are used for this purpose. These ecomaps may at the same time reveal insights about the relationship between the demands (stressors) the family is facing on the one hand, and the resources that are available to and used by the family on the other hand (i.e., the nature of the demand–resource balance; see Figure 2).

The term *circular communication relationship patterns* refers to how social interaction happens within members of a family (see Figure 3).

Critical Summary

This entry has discussed approaches to relational analysis from the point of view of its originators, who are considered to be Palmquist and Carley. A novel approach to relational analysis from a qualitative family content analytic point of view also was presented. Further research is needed to identify the commonalities between these two approaches so that researchers who wish to continue using a case study approach in their research programs can enhance the level of trustworthiness—or validity and reliability—to the coding choices they make and, ultimately, in the new knowledge they create to understand and/or measure the nature of relationships as social interaction in our society.

Carole-Lynne Le Navenec and Sandra P. Hirst

See also Content Analysis

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RELIABILITY

Reliability refers to the consistency and stability of research results and is one of two foundational elements (the other being validity) in conducting rigorous research. Reliability assesses the extent to which the results and conclusions drawn from a case study would be reproduced if the research were conducted again. Reliability in case study research is normally addressed through three techniques: (1) triangulation, (2) interrater reliability, and (3) an audit trail.

Conceptual Overview and Discussion

The concept of reliability is associated with positivist research and addresses the *reproducibility* of results. By contrast, validity assesses the *accuracy* of results. The goal of reliability is to minimize bias and error in the collection and analysis of data to the point that the same results and conclusions would be reached if the research were conducted again.

A common example of reliability is the task of weighing oneself on a bathroom scale. If repeated attempts indicate the same weight, the scale can be said to be reliable. Note that a reliable scale is not necessarily an accurate one: Even though the scale gives a consistent measure, it may indicate a weight that is consistently higher or lower than your actual weight. Thus, reliability can exist without validity, but not vice versa. Put another way, reliability is a necessary but not sufficient condition for validity.

Consistency and stability are two dimensions of reliability. *Consistency* refers to the degree to

which the results can be independently re-created within an acceptable margin of error and is a form of measurement error. Consistency can be thought of as the level of variability in the method or instrument of measurement. *Stability* refers to the degree to which the results can be replicated independently at a later point in time and is similar to the replication of an experiment; if the same case were to be re-examined at a later point in time, would the results be the same?

As the use of case studies has gained acceptance within the positivist community, concepts of rigor such as reliability have been increasingly applied to the methodology. However, the importance of reliability in case studies depends to some extent on the researcher's epistemological perspective. Researchers who adhere to a social constructive or interpretive research philosophy may see case studies as a way to examine a phenomenon embedded within a unique situation at a certain point in time. They may therefore conclude that evaluating reliability is inappropriate, because the research cannot be reproduced.

Application

Reliability in case study research can be assessed by applying three commonly used techniques to address the dimensions of consistency and stability: (1) interrater reliability, (2) triangulation, and (3) an audit trail. These techniques are discussed next in the larger context of consistency and stability.

Consistency

There are two components to consistency: equivalency and internal consistency.

Equivalency

Equivalency is concerned with consistency of observation at a point in time. Case study research is susceptible to error in observation, in particular when a single researcher performs the observation and analyzes the data. In case study research the researcher can be viewed as part of the measurement process. Just as a physical instrument may have error in measurement, so too can an individual in observing or in applying coding or categorization to the qualitative data, introducing bias that

impacts reliability. Addressing equivalency requires that steps be taken to minimize the measurement bias of the researcher.

Equivalency can be addressed through the use of multiple researchers who collect and/or analyze the data. Multiple researchers reduce the overall error in measurement by allowing triangulated observations and data analysis that minimizes the error of any one observer. A technique for measuring the equivalence of the researchers' analyses interrater reliability—measures the degree to which two or more researchers agree on the application of a judgment scale or coding process. Several approaches to interrater reliability exist, such as kappa statistics (e.g., Cohen's kappa, Fleiss's kappa), correlation coefficients (e.g., Pearson's rho, Spearman's rho), and intraclass correlations. The appropriateness of the individual approach depends on the type of measurement desired.

A common example of an attempt to achieve equivalency is the use of multiple judges during Olympic ice skating competitions. The score assigned to a figure skater's performance is determined by a human judge, whose observations and ratings are potentially influenced by a wide variety of factors—different interpretations of the rules, the judge's country of origin, the style of music being played during the skater's performance, political considerations, and so on. These factors introduce bias and error into the judgment. The use of multiple judges is designed to counterbalance the bias and error introduced by these factors acting on each individual judge.

Internal consistency

Internal consistency refers to the uniformity among similar data points thought to be measuring the same construct. Unlike equivalency (in which the measurement method or instrument introduces potential bias), in internal consistency data are the potential source for bias and error. For example, suppose a manager is interviewed for his perspective on why the CEO has just been fired. It is possible that the individual simply does not know the true reason, or he or she may have a perspective bias that resulted in inaccuracies in the data collected from the interview.

In case study research internal consistency can be increased by collecting data from multiple sources and by using different types of data, an

approach referred to as triangulation. Triangulation allows for more confidence in the value of data because the data are derived from multiple perspectives. Triangulation can include the use of multiple sources, such as interviewing individuals in multiple departments or at varying levels of management (line workers, supervisors, middle management, etc.) or the use of multiple data types (e.g., public documents, such as newspapers, and internal documents, such as memos and e-mails). The measurement principle behind triangulation is that the less reliant the data set is on a single type of data or a single source of data, the more likely that independent researchers would be able to recreate or re-establish the order of occurrence, the degree of influence, or the attitudes and opinions concerning organizational events or characteristics from the past.

Consider the different perspectives of documents generated external to an organization compared with documents generated internally. Documents that are external to the organization newspaper or magazine articles, government reports, or industry-based promotional material provide an external representation of facts, figures, and interpretations of events that are generally understood and widely available. On the other hand, documents that are internal to the organization-memos, committee or board meeting minutes, company e-mails, or other correspondence—provide internal representations of facts, figures, and interpretations of events that an individual or organization may not necessarily want a general audience to know. Examination of both internal and external documents allows researchers to view data points from multiple perspectives, and this can minimize the bias from any one individual data source.

Stability

Stability represents the consistency of results obtained over repeated measurements and is often measured through test-retest procedures in which a variable is measured at two points in time and then compared to determine whether similar results are generated. In case study, stability depends on whether the case study time line, sequence of events, and changes in the variables under study and their interrelationships across

time are repeatable. Because so much of the analysis in qualitative research methods such as case studies relies on researchers gathering, documenting, and inferring variable measurements across multiple data sources, it is vital that the specific process of getting from the raw data to the final evaluations or measurements is made explicit. The absence of an explicit description of the process makes replication by an independent researcher impossible.

An important technique for addressing replication in case study research (and therefore demonstrating the potential for stability) is the audit *trail*—the documentation of the research process, including how and why the data were collected; how the data were analyzed; and any other decisions or considerations related to the data, the results, or the conclusions that were drawn. Such documentation provides enough detail that another researcher can examine the data collection and analysis process and not only understand what the researcher did and why but also be able to reach conclusions similar to the original researcher's. Even if the nature of the study does not allow a literal replication, the documentation provides a trail that allows for the research from data collection to conclusion—to be logically replicated.

Critical Summary

Reliability assesses the reproducibility of results and conclusions. Reliability in case study research requires paying attention to both consistency (equivalency and internal consistency) and stability.

There are several techniques researchers can apply to increase the reliability of their research. Using multiple researchers and interrater reliability techniques counterbalances the biases that may be evident when an individual researcher makes observations or analyzes data. Triangulation within and across data sources addresses the potential threat to reliability caused by a lack of internal consistency among data points. Finally, stability can be addressed by documenting the research process so that an independent third party can reproduce the research process from data collection to conclusions.

Kerry Ward and Chris Street

See also Case Study Database

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REPEATED OBSERVATIONS

Repeated observations are repetitions of observations of the same item/focus that occur in single or multiple cases. They can occur over time as a form of time series analysis or in a cross-sectional manner (e.g., different sites) in case study research. Repeated observations typically occur in the form of interviews, survey responses, and/or observations (made in person or through video-recording).

Conceptual Overview and Discussion

Repetitions of observations can reveal changes in patterns of behavior over time and in different circumstances. For example, repeating observations of how children in playgrounds relate to one another at various times of the day might reveal that children are more aggressive immediately before meals. The analysis of repeated observations in such a case would not have provided insight into why the children became aggressive at these times. It may, however, alert the researcher to examine other evidence within the case, such as the children's socioeconomic status. Repeated observations often reveal processes hidden from immediate view, including timing of the phenomenon under study in regard to critical junctures and pathways.

The major advantage of repeated observations is that they can expose similarities and differences that occur in behavior or response over time, in different settings, or among different people. This in turn helps to identify consistencies, inconsistencies, transitions, and the trajectory of the phenomenon under study. For example, in a case study about adjustment to university a researcher might ask university students interview questions or provide a survey questionnaire to the students three times in their first semester. Commonalities and differences across multiple observations may suggest some preliminary conclusions. Students' assertions in the first interview that homesickness was a significant concern and their failure to mention this in the final interview might lead the researcher to a conjecture that homesickness is no longer a concern following the initial adjustment period.

Robert Yin considers repeated observations to be a "lesser" form of case study analysis because of its narrow focus; that is, it does not reflect the complexity of the case. He recommends that repeated observations be augmented by analysis of the whole case. Because analysis of repeated observations focuses on the identification of patterns, relying on this as a sole means of case analysis might cause the researcher to overlook some of the relevant aspects of individual cases, in particular the meaning of such data.

Case study research that draws on repeated observations faces many of the same challenges as longitudinal case study research. For example, a common challenge is retaining participants in a study entailing multiple data collection points. An additional issue is subject and researcher burden. Asking people to participate in multiple interviews, for example, has implications for their time and energy commitments that might result in subject attrition. As well, requiring the researcher to engage participants in multiple settings or on more than one occasion has resource implications.

Application

The uses of repeated observations by means of quantitative or qualitative data collection strategies are discussed in detail by Eva Carlsson, Anna Ehrenberg, and Margareta Ehnfors and by Dorothy Leonard-Barton. In Sweden, Carlsson

and colleagues used repeated observations in the form of multiple interviews and participant observation of mealtimes to document the changes that stroke survivors experienced in eating as they recovered from the stroke. In comparing the repeated observations, the researchers recognized that the process of relearning to eat following a stroke is one that varies according to the stage of recovery, from preoccupation with the limitations resulting from the stroke to acceptance of the changes. Leonard-Barton investigated the development and deployment of artificial intelligence computer software in a company. She conducted a series of interviews, surveys, document analyses, and observations at one organizational site and discovered that there were differences in the manager's public discourse about the innovation and his private memos to company employees. She pointed out that it was in the analysis of all data (i.e., repeated observations in regard to interview, survey, observational, and document data) that she gained an in-depth understanding of the case.

Critical Summary

Analysis of repeated observations can reveal changes in experience, as well as consistent and inconsistent patterns of behavior or response across varied contexts, and it can suggest preliminary conclusions. Using repeated observations in case study research is an acknowledgment that human behavior and responses change according to context and timing. It is a means of addressing the concern of some critics of case study research that the findings are presented as static and decontextualized. There is a risk, however, that relying solely on repeated observations can obscure the contextualized origins of the case that answer the "why" and the "how" of the phenomenon under study. An additional concern is that some of the commonalities that are evident across repeated observations may reflect the inability of the researcher to capture differences in the participant's story. There are circumstances under which participants may have a well-rehearsed story that does not change over time. For example, people who have a disease may learn to normalize their condition and tell a story of their illness as living a normal life. If the research interview is unable to

explore the experience of living with the illness in a way that engages the person to go beyond that story, then repeated observations will contribute little to the understanding of the case.

Barbara L. Paterson

See also Longitudinal Research; Multi-Site Case Study; Participant Observation; Triangulation

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REPLICATION

Replication is conducting a study in *another* case (or population) to assess whether a research finding from previous studies can be confirmed. The aim of replication is to assess the generalizability of a theoretical claim and establish that the research finding that is (or is not) confirmed in the replication study is derived from the previous studies.

Sometimes the term *replication* is also used to refer to a study conducted in the *same* case (or population) to assess whether the finding from the previous study can be reproduced. To avoid confusion, the latter method of assessing the reliability of a study might better be called *duplication*. Duplication is not discussed in this entry.

Conceptual Overview and Discussion

The Concept of Replication

David Hume formulated the general problem of induction, stating that the fact that a claim has passed one test does not provide any evidence that it will pass other tests. This implies that one cannot know for sure that a statement about a class of entities is true if that statement has not been tested in every instance of that class. Using a well-known example of such a claim, "All swans are white," Hume's problem implies that we know this for sure only after we have observed the color of every single swan. Because this is usually not feasible, Hume concluded that induction is not possible. Karl Popper's conclusion was that such confirmatory certainty should not be sought and that instead one should attempt to achieve certainty about the incorrectness of the statement. A single counterexample (a non-white swan) would be sufficient for achieving this. Replication is the search for confirmations (Hume) or disconfirmations (Popper) of a claim about a domain of, in principle, an indefinite number of entities to which the claim applies.

Replication is also the core procedure by which credible theoretical knowledge is generated. It is not a one-off activity but a strategy of subsequent tests in which the likelihood of the correctness of a claim for a domain increases with each failure to find a disconfirmation. The more different an entity (or a population of such entities) is from the ones in which earlier tests were conducted, the larger the contribution of that test to the confidence in the correctness of the claim. Replication is a general procedure that applies to all sciences and all research strategies. Its relevance and applicability are not confined to only some types of tests, such as case studies or experiments.

The Yin-Eisenhardt Approach to Replication

Robert Yin stated that replication is the attempt to find support for a proposition in a number of single case studies, arranged effectively within a multiple-case design. He emphasized the analogy between such a series of single case studies and multiple experiments but did not mention the general principle of replication that applies to all other research strategies (including the survey) as well. Yin implicitly assumes that replication applies only to propositions about characteristics of single

cases (see the discussion of types of proposition in the Theory-Testing With Cases entry, this volume). Kathleen Eisenhardt, who proposed Yin's replication logic as the core procedure of her approach to theory-building, made this assumption explicit by stating that, in her approach to theory-building, each hypothesis is examined for each case, not for the aggregate cases (see the Theory-Testing With Cases entry, this volume).

Application

Replication Strategy

In a replication strategy knowledge about the correctness of a claim is built up in a stepwise fashion. In general, the higher the number of tests that have been conducted, the lesser is the contribution of each next one. An implication of this phenomenon of diminishing returns is that, after a series of replication studies (if well designed), saturation will occur. At that point, researchers will conclude that no further replication is needed and that more or less definitive conclusions can be drawn about the correctness of a claim for a specified domain.

A replication strategy should be designed such that the contribution made by each step (i.e., by each next replication study) is maximized. Two principles are used to achieve this:

- Because a disconfirmation of the claim is more informative (about its correctness) than a confirmation, serious attempts should be made to select "least likely" cases (or populations) for the test. These are cases and populations in which, for theoretical or practical reasons, it is considered relatively unlikely that the claim can be confirmed.
- Cases (or populations) should differ as much as possible, because a confirmation in such cases tells us that the claim seems to hold despite these differences.

Confirmatory results increase the confidence in the correctness of the claim but do not allow researchers to learn new things about it. As long as saturation cannot be claimed to have been achieved, researchers need to continue replication studies in least likely cases that differ as much as possible from previous ones. Disconfirmations are potentially much more informative, but they require interpretation. A disconfirmation of claim in one test can mean at least three different things:

- 1. A false negative. The studied case or population actually confirms the claim, but the study fails to generate this result, for example, because of measurement error or some other error. Before concluding that the test result is a disconfirmation, the quality of the study needs to be evaluated. Replications in similar cases (or duplication) might shed light on this issue.
- 2. The claim is correct for a smaller domain than was initially thought. The studied case or population might represent a part of the initial domain in which the claim is not true, whereas it (supposedly) is true in other parts of the domain. The test result is considered to be informative about the boundaries of the domain in which the claim is true. Replications on both sides of the apparent boundary could confirm or disconfirm the correctness of this interpretation of the test result.
- 3. The claim is not correct for the whole domain or for a substantial part of it. If this possibility is taken seriously, replications in "most likely" cases could confirm it. If the claim cannot be sustained, it might be reformulated.

A replication strategy, therefore, is not designed beforehand. Every next move in a replication strategy takes all previous test results into account.

What Is Replicated?

What is replicated depends on the content of the theoretical claim. If the claim is modest, as in "This operation generates a positive effect," then a replication should attempt to find a positive effect with the operation, and the replication could be deemed a confirmation if such a positive effect (irrespective of its size) is observed. If the claim is "This operation generates an effect size of at least d" (in which d is the effect size found in an earlier study), then replication involves finding out whether such a minimum effect is observed. Another candidate for replication would be "This operation generates an effect size within the confidence interval of d." Note that no null hypothesis statistical testing is involved in replicating claims about the size of an effect or of a relationship.

Critical Summary

A replication strategy is an iterative strategy of successive tests of a claim aimed at maximizing the chance of finding disconfirmations. If such disconfirmations occur, these need to be interpreted. This might result in a reformulation of either the claim or the boundaries of the domain in which it is supposed to be true. Replication is a general scientific strategy that is basically the same in all disciplines and is applicable to findings from studies in all research strategies, such as in experimental designs as well as in survey research. Its application in case study research is not different from its use in any of these other research strategies (see the Theory-Testing With Cases entry, this volume).

Tony Hak and Jan Dul

See also Pattern Matching; Theory-Building With Cases; Theory-Testing With Cases

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REPORTING CASE STUDY RESEARCH

The phrase *reporting case study research* refers to the presenting or writing up of researchers' work, often the last stage in case study research process. This entry deals with the major considerations researchers should take when preparing their work for publication or presentation.

Conceptual Overview and Discussion

For the case researcher, probably the greatest factor that will influence the form of the case report

will be the intended audience for the case. Because the results of case research may be of interest to a wide range of audience types—for example, other academic specialists within a field of study or discipline, organizational or public policy practitioners, or students—their interests and needs will be different. It is these differences that should drive how the case is written up and that will determine what information or information subsets (e.g., methodology, analytics, discussion, and results) from the research will need to be included or emphasized in the reporting of the case. If the research is being presented to members of an academic audience, who are already familiar with the methodology being used within the case, their interest will normally be in how the particulars of the case relate to the larger body of related research. On the other hand, it is likely that public policy or organizational practitioners will be more interested in what concrete or practical lessons may be drawn from the case rather than the case's contribution to an abstract body of theory. For students, the focus will likely be on how the case material relates to a body of theory and how the case may inform them concerning the application of theory in a real-life setting. In any event, the audience's interest for particular types of information needs must be kept foremost in the mind of the researcher, whether he or she is writing for fellow academics, students, or managers.

Regardless of the audience, however, it must be recognized that it is the nature of case research itself that provides one of the greatest challenges to the researcher for the writing up and reporting of his or her research. Because each case is relatively unique, case research by its nature is not amenable to rote or formulaic approaches to reporting. "Standard" or "proprietary" formats that are used in other forms of research, for example, experimental or quantitative survey-based research as published in journals, are not likely to be suitable for most case reports. This is why case researchers have a wider latitude and a greater range of choice for the form and format of their case reports. However, this latitude comes with a price for the case researcher: Unlike the formulaic constraints that may exist for other types of research reporting, for the case researcher this task is much more complex and demanding.

Although the writing up or reporting of case research is actually the last stage in the case

research process, researchers may (and, many would argue, should) engage in the writing of the case earlier in the research cycle. Although the process of writing up from the beginning is a demanding and challenging one, this type of approach ensures that, for the researcher, the case material—whether thoughts, ideas, data summary, or synthesis—is not forgotten or missed when he or she is reporting the results of the case research. In addition, the act of writing up the case as the research moves forward often aids in the execution of the research itself; it forces the researcher to be reflexive concerning the case, its aim, and the knowledge to be found within or drawn from the case. It also avoids placing the researcher in a position of "where to start" once all the data have been gathered and the analysis completed, thus militating against a condition of writer's block.

Compositional Structure

To assist those engaging in case research, Robert Yin categorizes six primary types of compositional structures that case researchers may use for reporting their results. These include the (1) linear analytic structure (essentially a journal-like style or format), the (2) comparative structure (where the data within a case are presented two or more times using alternative models or explanations), (3) a chronological structure (where case material is presented to the reader in a chronological or temporal sequence), (4) a theory-building structure (where the structure is dependent upon the logic of the theory developed within the case), (5) a suspense structure (where outcomes or conclusions are presented first, explanatory material is presented second, and an element of surprise is used to link the two), and (6) an unsequenced structure (where descriptive material is presented in a fashion that makes the best sense for that particular case).

Although it is not one of Yin's pantology (or survey) of compositional structures, case reporting may also be accomplished through a purely narrative or storytelling form. This is particularly suitable if the researcher wishes the audience to have a more vicarious or intimate experience of the case as a story with emplotment and characterization. It is a particularly valuable approach in that the narrative form facilitates readers in "living" inside the case, in essence experiencing what the actors

in the case themselves experience. This approach is most useful for reporting research that is intended to be persuasive. Quite often this is the form of case research that is later published in a book format.

Although it is recommended that the writing up of the case report is conducted in parallel with the conduct of the research itself, regardless of the type of compositional structure chosen for the report the final task faced by the researcher will be to complete the report. It is recommended that case researchers engage in three penultimate activities in preparation for the completion of the write-up or case report. First, the researcher may use a checklist to ensure that the case is presented in as complete a fashion as possible. For complex cases, this ensures that nothing is missed in the case report. There are numerous examples that are readily available to the researcher from within the literature on case methods. The second activity is to have someone involved in the case (e.g., a respondent) read and comment upon the report itself. If a case is amenable to this procedure, this type of review may serve as a ratification check for the researcher. For researchers new to case research these activities should be adopted until the case researcher's level of experience with writing cases matures. Finally, once the write-up has been completed it should be critically reviewed by someone other than the author. This third-party reader serves a function akin to that of an anonymous reviewer for publication, a final check on the presentation style and internal consistency of the case report.

The Exemplary Case Report

Regardless of the compositional structure selected, the researcher's engagement with the writing up process at whatever stage or stages, or the review process chosen to ensure completeness of the final report, an exemplary case report will meet a number of critical tests. First, it must put forth persuasive arguments. These arguments must be based upon a method and analysis that are transparent and understandable to the reader. The conclusions derived from the analysis and the discussion must also be plausible to the reader in light of the unique nature of the case. Finally, the presentation of the case material, the discussion, and the conclusion(s) must resonate with the interests of the intended audience.

If the case report can pass these critical benchmarks, then the case researcher has been successful.

Finally, case researchers may wish to give some consideration to presentation of case results in an oral presentation format. For cases that are more action-research, practitioner site-specific, or educationally oriented, researchers may be required to report the results of the case using a combination of both written and oral formats. Although the tenets of an exemplary case report described in the preceding paragraph still apply, the case researcher must also determine how best to report the results of a case to a sponsoring committee, senior manager(s), a functional group within an organization, or students. In these circumstances the researcher may be faced with the challenge of presenting what could be a complicated case to an audience that is pressed for time, whose members are almost solely interested in either just the facts or any recommendations, or potential ways to solve problems presented by the case itself. Should this be the case, the researcher should endeavor to report the results more succinctly than otherwise would be warranted. In any event, careful consideration needs to be given to the necessities for parallelism in the formally written case report and oral presentation of facts, recommendations, or problems.

Terrance G. Weatherbee

See also Anonymity and Confidentiality; Anonymizing Data for Secondary Use; Audience

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RESEARCHER AS RESEARCH TOOL

The phrase researcher as research tool signals both a stage in the methodological debate about

the role of the researcher and a particular kind of research that focuses on the researcher/interviewer more than (or instead of) the conventional "subject" of case study research. The tools developed within this conceptual framework can remind all case study researchers that their research material can only be studied with the recognition that they, themselves, are part of the cases they are studying and that their own experience can be a case itself.

Conceptual Overview and Discussion

Social research has only recently fully accepted the idea of the researcher as research tool. For many years, the positivist concept of "objectivity" disallowed an active role of the researcher in any social study. Feminist researchers such as Ann Oakley began to point out that not only was such objectivity impossible in a conversation between two human beings but that it was ethically suspect. The first-time mothers (i.e., women having their first child) she interviewed would ask her questions that they did not feel able (or had not had the opportunity) to ask their medical doctors. As an objective researcher, Oakley had been advised to fend off such questions, but as a human being (and a mother) she could not refuse to share her own knowledge. As a result, she had much greater rapport with her interviewees and the data she collected were much richer. Qualitative researchers began to interrogate their role as researchers more thoroughly and saw how their participation in the interview affected the outcome. Far from seeing this as negative or simply clarification, researchers soon came to regard their identity and the role they played in the research (especially in interviews) as crucial to the outcome. The researcher himself or herself had become one of the most valuable research tools. The inclusion of researcher as research tool extends to the analysis of qualitative studies, as demonstrated by Mauthner and Doucet in their influential article "Reflections on a Voice-Centred Relational Method." They deny the feminist aim to simply represent the "voices" of their participants, arguing that researchers' omnipresence throughout all the stages of research inevitably means that researchers are, and must be, both the subjects and objects of their own research.

Application

An increasing number of case study researchers take their own lives and experience as either a part of a larger case study, or the case study in its entirety. Liz Stanley provides some rich reflections that take her own experience as a fully adequate "case." In her article "The Knowing Because Experiencing Subject" she examines her own diary during the period after her mother's severe stroke and before her death. Her objective in the article is to examine the self as a referential subject. The selves she examines are her mother's changed self, her own response, and how that is reflected in her diary entries. At the heart of this is to assert the knowledge claims of both experience and narratives about that experience. In this case, as in others, the only case that it makes sense to examine is that of the researcher's own experience. The researcher is both the case and the research tool. In studies where the emphasis is on what we can learn from the researcher's own life, incidents in the researcher's life become the trigger for deeply theoretical discussion, as the Stanley example shows. An analysis of someone else's diary or research notes might raise as many questions as answers, but in autobiographical material the researcher has access to at least some of the explanatory background. This does not, of course, make it objectively true, but it does enable the researcher to write with more confidence about what the material refers to, knowing, as he or she does, the context in which it occurred.

A very different application of the researcher as research tool appears in participatory action research. In these examples, the researcher uses his or her identity as a member of the studied group to both provide legitimation and to enable a deeper understanding of the topic under study. The emphasis in participatory action research and in community-based research is to recognize that "we are all creators of knowledge" as Sandra Kirby and Kate McKenna emphasize in their book detailing how this kind of research can be done. Standpoint theory has been particularly valuable in arguing for consideration of the perspective of the researcher and most importantly of the inherently privileged position of the view from below or outside mainstream society. Although Kirby and McKenna, and other authors of similar books, recognize that

there is a place for academic researchers in such studies, the emphasis is always on passing the direction of the study to the members of the community being studied. Indeed, many writers imply that the best course for such research is to have no outsider researchers involved but to pass everything to the members of the group, thus making them researchers and research tools. There are some dangers associated with this kind of approach. Community participants who are not trained in social science methods may not only fall into the common traps of qualitative research but also may filter the data through their own experience and be unable to see, or to analyze, data that contradict their experience—a danger that parallels "going native" in traditional ethnography.

Critical Summary

The concept of the researcher as research tool has been taken up in a number of ways. Each of the ones described in this entry approaches issues of experience and legitimacy in different ways. Each has their strengths, but also dangers and weaknesses. It is perhaps best to see the concept of researcher as research tool less as a methodological tool, like observation, than as an epistemological realization that the researcher cannot be absent from case study research. That his or her role as a research tool must at least be recognized, and it can be made use of to enrich both the approach to and the analysis of the study. Looked at from this perspective, the researcher as research tool adds a valuable corrective to more standard approaches to case study research.

Marilyn Porter

See also Action-Based Data Collection; Case Study Research in Feminism; Explanatory Case Study; Going Native; Standpoint Analysis

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RESEARCHER—PARTICIPANT RELATIONSHIP

Both in the humanities and social sciences, researcher–participant relationships in themselves started to become a particularly overt topic in the 1980s. There was a growing sense of the inseparability of the actual object of research from the way in which researchers conducted their research and/or wrote up their findings and the type of knowledge produced.

In broader terms, researcher-participant relationships can be approached at a micro- and macrolevel: Whereas the microlevel refers to the individual researcher and participant, the macrolevel relates to the historically established status of researchers vis-à-vis their objects of study. This position was especially visible in 19th- and early 20th-century anthropological works, which were colored by the colonial conditions of power inequality. The authority attributed to Western researchers studying among non-Western peoples or populations—who usually occupied a lower social status than the researchers themselves—is illustrative of this historically and socially constructed inequality.

Since the 1980s, the position of researchers—with respect to their methodologies and techniques of conducting research as well as the textual authority that they acquire in their writings—has been scrutinized through intensive interdisciplinary debates. As a result, research participants have been attributed greater agency and are now seen as having more scope to influence the course of research. A concrete indication of this attitude is the change in the mode of addressing research participants: Especially in case studies, words that do not imply passivity, such as *interviewees*, *participants*, or *collaborators*, are now preferred to terms such as *respondents* or *subjects*. At the epistemological level, the positioning of participants and

researchers in relation to each other is such that some scholars reject the formulation "data gathering" in favor of "producing data" in an effort to emphasize that there are no neutral data to be collected among people and to highlight the fact that as a consequence of our relationships to people we become part of the data that we produce. Although further elaboration of researcher—participant relations remains, issues revolving around the nature of relationships and power dynamics, the possibilities and accuracy of representation, the determination of ethical rules of engagement, and the dissemination of research results have been the major areas of problematization.

Conceptual Overview and Discussion

Many of the theories employed in qualitative research (developed in the aftermath of positivist paradigms) coincide with more recent sensibilities and critical elaborations voiced in feminist scholarship, poststructuralism, postmodernism, and postcolonial theories. Feminist scholars pioneered the investigation of their own individual and social status as researchers and considered their positioning to be an integral part of their research methodologies and methods. This reflexive momentum raised major ethical and methodological questions: Can we claim to represent the experiences and views of research participants, how do we obtain their consent, what kind of responsibilities do we have toward them, what ethical principles should guide us in our encounters and in the documentation of private or sensitive matters? These considerations fundamentally altered the privileged position of researchers, which had hitherto scarcely been questioned. Over the course of the 1980s, feminist scholars theorized the connections among gender, power, and knowledge. They challenged the prevailing objectivist trends, offered alternative forms of writing intended not to privilege the researcher's narrative over that of the participant, and drew methodological conclusions on the basis of new techniques adopted in their research. Although feminist scholarship raised awareness of these issues, what is now known as the reflexive turn in anthropology helped give voice to discontent with the existing paradigms of representation—and especially Western hegemonic writing about non-Western "others." These authors argued for innovative and experimental forms of writing that sought to reveal layers of dialogue without obscuring the voices of the research participants. The reflexive turn became a dominant point of reference that encompassed most academic meditations on the authority of the researcher.

In the aftermath of the reflexive turn social scientists have employed plural perspectives in their relationship to participants; these range from consciousness-raising projects, action research, and participatory research to impersonal surveys that set clear boundaries between the researcher and the participants. Whereas some researchers may consider structured and formal in-depth interviews appropriate to a particular research topic—used either in isolation or in combination with other methods—others might find such a research design too traditional and hygienic in that it merely reproduces the power relations between researcher and participant. Another standpoint views conventional research as overly intrusive and sees manipulation and insincerity in such a "hit and run" enterprise, arguing that the relationship with the participants for the duration of the research is of no long-term benefit to the research participants. Furthermore, researchers leave when their work is complete, and through their writing and dissemination (they are usually able to reach larger audiences that are beyond the reach of the participants) they monopolize the uses of the knowledge that they have produced. Although there is no absolute remedy for such constellations of power and representation, many researchers believe that the solution lies in trying to offer transparency by situating themselves and their participants in their representations. This may entail, for example, locating one's theoretical inclinations and uncovering a possible personal connection to the research topic. Yet how such subjectivity is conveyed in the end product—that is, the written text—is itself a source of debate. Should the researcher who conducts a case study make herself visible in her relations to the participants at every step of the research, or should she adopt a particular writing style that makes it obvious that what is conveyed is the vision produced through the lens of an individual researcher? The ability and fairness of researchers, their closeness to the research participants, and the perspective through which they approach those participants are also contentious issues. A small number of anthropological volumes containing accounts of sexual contact with research participants (whether

in the form of a rape or a romance with an informant) have fanned the debate as to the types of knowledge claims that can be made about participants. Empathy and resonance were seen by some anthropologists as a tool for capturing that which cannot be expressed by words or for experiencing a participant's subjectivity. Female anthropologists who study strip clubs, for example, commonly try to grasp the subjectivity of stripping by establishing close relations with the performers, whereas male anthropologists usually avoid tipping and decline to assume the position of the male customer and his subjectivity—however limited and transient the empathy thereby created would be. Here, the rejection of the chance to develop an (albeit fleeting) subjective experience ends up becoming the expression of a male academic subjectivity.

Application

Perhaps the most entertaining and at the same time enlightening examples of researcher-participant relations are Paul Rabinow's *Reflections on Fieldwork in Morocco* and Nigel Barley's *The Innocent Anthropologist: Notes From a Mud Hut.* Although these works center on the researcher himself, they do this by following his interaction with the participants and other persons encountered as part of the research process. Rabinow offers a self-reflexive account of his field work and explores the extent to which cultural data emerge as a result of the encounters between researcher and informant. In one instance, Rabinow describes how his informants tell him that he is a very nice guy but asks too many questions and does not know how to listen!

Although these well-known books are devoted almost entirely to the relationship between researcher and participant, other case studies and ethnographies with quite a different purpose still came to be known for their powerful rendering of such relations. In her seminal ethnography *Never in Anger: The Portrait of an Eskimo Family*, Jean L. Briggs produced one of the works most often cited as an illustration of the complexities and layers inherent in researcher–participant relations. Briggs did her field work in the Northwest Territories in Canada in 1963. She studied among people who called themselves Utkuhikhalingmiut (Utku). The Utku moved seasonally and lived in a very isolated region. Briggs was planning to study shamanism

and initially had not been open with her hosts about the subject of her research. Such an approach would probably not be ethically justifiable today, although in very rare cases researchers are given approval to deceive their participants. Briggs's writing gives the impression that she is conveying her relationships without trying to protect her reputation as a researcher; her book depicts daily life, her struggles with little heat and food and the lack of any explicit expression of negative emotions among the Utku. After being given the position of an honorary "daughter" Briggs was treated like a guest, given the softest seat, offered tea with sugar and milk (like the children), and urged to take the best portion of the food; subsequently, when she was no longer so favored, her guests took her delicacies and did not leave anything for her. In the many conflict situations and instances of lack of trust and misunderstandings that arose, Briggs did not want to be taken advantage of because of her supplies from the city, yet her supplies made her less, not more, desirable because they interfered with the mobility of the family. Later, the exchange relationships between Briggs and her hosts brought home to her how her own needs and desires (as a young, white, female, middle-class, educated person) colored her perception of them and made her more aware of her own humanness in relation to the Utku and their way of life. One of the most striking sections of the book is when Briggs finds either by accident or design—and reads a letter written by her hosts to their friends in town: Briggs then discovers the extent to which her hosts do not approve of aspects of her attitude and behavior. In the last instance, the narrative of this relationship between Briggs and the members of this small society reflects the way in which misunderstandings and mistakes in relations can be used to develop insight into other people and also reveals the human dimensions of research, which for their part are constructs of the historically determined situatedness of researcher and participants.

Critical Summary

The dynamics of researcher-participant relationships are seen as integral to epistemology and methodology in the postpositivist era. Researchers are expected to assume ethical responsibility toward participants in their research with regard

to the extent to which they may influence and disturb their life experiences as well as the ethical principles they apply both during the research and in the subsequent dissemination of their findings. Although this can be achieved in various ways, there is an expectation that researchers should situate themselves individually and/or socially in relation to their research participants and should seek to explicate how the participants' actions and statements are interpreted, reworked and (re)presented. The participants in research are not seen as passive subjects; their agency is acknowledged, and their feedback is regarded as part of the research process itself. Research conducted among groups or sections of society that may be corrupt power-holders or abusers has, however, prompted vigorous debate over questions of research ethics versus political responsibility: Some activist scholars argue that researchers cannot go along with the inequalities and injustices that they witness in the name of confidentiality, whereas others are unwilling to compromise with the conventional codes of research ethics. Such dilemmas highlight the ever-present political dimensions of social research. Problems revolving around power, representation, researcher-participant boundaries, the observance and violation of taboos, and so on, do not lend themselves to resolution through simple recipes. After all, researcher-participant relationships are by their very nature situated human relations whose continuously shifting ground calls for ongoing re-evaluation.

Hülya Demirdirek

See also Ethics; Subjectivism

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RESEARCH FRAMEWORK

The research phases present the steps that need to be taken in order to complete the research project successfully. It is highly recommended that these steps be visualized in the form of a schematic research framework. A research framework clearly illustrates the structure of the research plan and helps the researcher formulate relevant research questions. The research framework of an inductive case study differs from the research framework of a deductive case study.

Conceptual Overview and Discussion

After having defined the research objective, and before formulating the set of research questions, the researcher clearly delineates the steps that must been taken during each phase of the research project. These steps sketch in broad outlines the set of subsequent research activities needed to achieve the research objective. In general, three phases can be distinguished.

- 1. The construction of the theoretical framework. This framework consists of the key concepts of the research project and of the assumed relationships between these concepts. In a deductive case study project the theoretical framework takes the form of a conceptual model. In an inductive case study, the researcher develops a set of sensitizing concepts.
- 2. The gathering of the empirical data. To provide the information needed for completing the case study project successfully, the researcher gathers different sets of empirical data, such as people's opinions, the characteristics of the research objects, and additional background information. In deductive case study research data gathering is

- highly structured by operationalizing the conceptual model. In an inductive case study project the researcher often makes use of open and rather unstructured data gathering techniques.
- 3. The data analysis. In a deductive case study project the data analysis techniques are strictly in accordance with the operationalized conceptual framework. Inductive case study research often makes use of coding techniques. In an inductive case study project the research project will not always be conducted in a linear way. This means that the phases of theory construction, data gathering, and data analysis will often be carried out simultaneously.

In both a deductive and an inductive case study project drafting a neatly arranged research framework can prove to be helpful in defining the exact sets of activities conducted during each phase. Such a research framework is a schematic and highly visualized representation of the subsequent research steps. What is characteristic of the visualization of the research framework is the principle of confrontation, which is fundamentally necessary for drawing conclusions. In Phase (a), the researcher relates different theories in order to be able to construct a conceptual model. During the second phase, Phase (b), this conceptual model is related to the research objects. In Phase (c) the results of analysis are confronted with each other so the researcher can see their similarities and differences. The interpretation of these similarities and differences helps the researcher formulate the conclusions of the research project. Please note that the confrontation and the conclusions drawn from this confrontation are represented by the symbol as visualized in Figure 1,

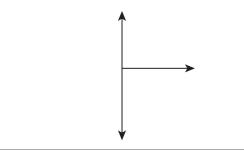


Figure I Confrontation symbol

Source: Verschuren and Doorewaard (2009).

in which the vertical arrow stands for the "confrontation" and the horizontal one stands for "from this can be concluded."

The following section presents two examples of a research framework in both a deductive and an inductive case study project.

Application

Example 1: Deductive Case Study Project

Project Context

A department store chain is having problems with its supply of goods. This problem is multifaceted: logistics, transport management, arrangements with suppliers, customer relations, and so forth. The source of the logistical problems is not quite clear. Some people in the organization blame the organizational structure. Others point to the lack of commercial orientation in the organizational culture. Some people claim that the core problem has to do with the employees' resistance to change. The head of the Department

of Logistics and Distribution commissions a consultancy agency to carry out a research project that can shed light on the causes of the logistical problems.

Research Objective

The research objective is to offer the head of the department recommendations for improving the effectiveness of the logistics by making an inventory of the views held by four groups of stakeholders within the organization (general management, logistics and distribution staff, transporters, and management local offices) about the exact nature of the logistical problems and the main background factors that cause these problems (see Figure 2).

Research Framework: Phases

(a) Theoretical framework. An analysis of the organizational literature on logistics, organizational structure, organizational culture, and organizational change will result in a conceptual

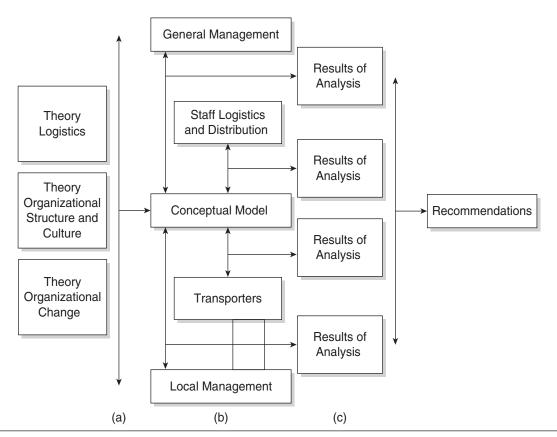


Figure 2 Research framework logistics

Source: Verschuren and Doorewaard (2009).

model that consists of a set of factors that influence the effectiveness of the logistics.

- (b) *Data gathering*. With the help of this conceptual model, the researcher can map out the opinions held by the various stakeholders in regard to logistic problems and the background factors.
- (c) *Data analysis*. A comparison of the similarities and the differences between these sets of opinions will give the researcher the information needed to offer the recommendations requested.

Example 2: Inductive Case Study Project

Project Context

Second- and third-generation women of Turkish and Moroccan origin in the Netherlands often experience difficulties when they decide to start their own businesses. Not only do they suffer from the prejudices expressed by people with a non-Turkish or non-Moroccan background, but also it appears to be difficult for members of their own family and peer groups to accept that these women have made choices in their lives that might conflict with traditional morals and ethics. How do these women cope with difficult and complex situations, in which conflicting norms and values in regard to gender, ethnicity, religion, and entrepreneurship occur?

Research Objective

The research objective is to develop further the theory of gender and ethnicity within the context of entrepreneurship by elaborating on the sensitizing concept of "female ethnicity" by making a step-by-step analysis of how gender, ethnicity, family background, and religion within the context of entrepreneurship influence the coping strategies of a sample of 20 female entrepreneurs of Turkish and Moroccan origin in the Netherlands (see Figure 3).

Research Framework: Phases

- (a) Theoretical framework. An analysis of the literature published on gender, ethnicity, and entrepreneurship results in a first description of female ethnicity as a sensitizing concept.
- (b/c) Data gathering/data analysis. Step by step, the researcher gathers and analyzes additional data and information of the lives of the women in the sample in regard to gender, the family, and religion. Each time, the description of the sensitizing concept female ethnicity can be deepened and specified. This will give the researcher the information needed to develop further the theory of gender and ethnicity within the context of entrepreneurship.

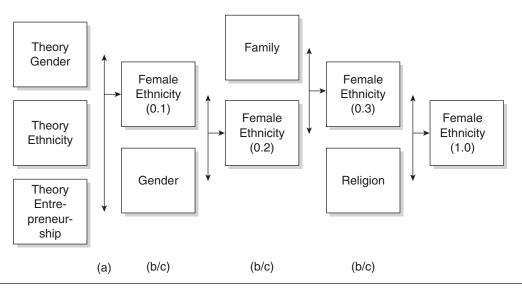


Figure 3 Research framework coping strategies

Source: Essers et al. (2008).

Advantages

Constructing a research framework has several advantages. First, the research framework presents all parties involved with a compact and clear picture of the nature of the research project and the expected results. This substantially reduces the risk of misunderstandings and ambiguous agreements.

Second, the construction of a research framework prompts the researcher to select the relevant literature, and it indicates how and from what perspective this literature should be studied. If this aspect has been insufficiently specified, the researcher runs the risk of having to browse through all the existing literature in the field of study, which is why he or she will no longer be able see the forest for the trees.

Third, the research framework helps the researcher formulate the set of research questions, particularly in a deductive research project. The construction of the research framework provides him or her with a clear understanding of how to realize the research objective, and it includes the context within which the central questions and subquestions can be formulated.

Critical Summary

It is highly recommended to present the distinct phases of a research project in the form of a schematic research framework. Although such a research framework in itself does not add any new information about the research project, it certainly helps the researcher to clearly present the research plan, select the relevant literature, and formulate an adequate set of research questions. The construction of a research framework is useful in both deductive and inductive case study research.

Hans Doorewaard

See also Conceptual Model: Causal Model; Conceptual Model: Operationalization; Conceptual Model in a Qualitative Research Project; Conceptual Model in a Quantitative Research Project; Sensitizing Concepts

Further Readings

Essers, C., Benschop, Y., & Doorewaard, H. (in press). Female ethnicity: Understanding Muslim migrant businesswomen in the Netherlands. *Gender, Work and Organization*.

Verschuren, P., & Doorewaard, H. (2009). *Designing a research project*. The Hague, the Netherlands: Lemma/Boom.

RESEARCH OBJECTIVES

A well-defined research objective forms the basis for a case study project's success. When designing a case study project, the researcher selects a problem within the project context that is feasible for successfully completing the research project. The result of this delineation is a research objective that clearly describes the information the research project will provide. This information will help solve the problem.

Conceptual Overview and Discussion

The first step in setting up a research project is to map the *project context by* answering the following questions: Which problems are involved within the project context? Whose problems are they? The second step is to formulate an *effective research objective*, which provides the necessary information to solve the problem. An effective research objective is useful, feasible, unambiguous, and informative.

A *useful* research objective in a theory-oriented research project indicates how the research project will contribute to solving a theoretical set of problems. In a practice-oriented research project the research objective states how the research project will be of relevance to the organization or the institute that is enabling the research project.

Feasibility refers to how accessible the necessary knowledge and resources are. In addition, it is important that the research project can be finished within the time allotted. If it concerns an academic bachelor's, master's, or PhD thesis, feasibility is often related to the time allocated to the project by the educational institute. The feasibility of a practice-oriented research project depends on the constraints set by the organization in which the research will be carried out.

An *unambiguous* research objective implies a precise indication of the project's contribution to solving the theoretical or practical problem. This

contribution can vary widely, depending on the nature of the research project. For example, a theory-oriented research project might contribute toward the development of a new theory or toward the improvement of a theoretical view. A practice-oriented research project, for example, might clarify a policy problem, identify bottlenecks in organizational change, or make recommendations for improving an existing problematic situation.

An *informative* research objective gives a general idea of the knowledge the research project will generate in order to contribute toward finding a solution. Please note that a more exact definition of the knowledge required will be provided in the set of research questions and subquestions presented later in this entry.

Piet Verschuren and Hans Doorewaard introduced a very helpful formula to verbalize a useful, feasible, clear, and informative research objective. This formula is:

The research objective is . . . (a) . . . by . . . (b). . . .

The (a) part presents, in a comprehensive way, the unmistakable description of how the research project can contribute to finding a solution of the theoretical or organizational problem described in the project context. The (b) part of this formula gives a clear description of the way this will be obtained.

Project Context

In Organization Y, Human Resources Manager X experiences substantial problems in regard to the role of the company medical officer in work-related conflicts. Employees often consult the company medical officer when suffering from illnesses that are obviously related to conflicts between the employees and their superiors. The company medical officer will find himself or herself in a double-bind position between loyalty toward the organization and the care of the patients. Which role can the company medical officer best play in these conflicts?

Research Objective

(a) The research objective is to make recommendations to X about the organizational policy for

improving the role of the company medical officer in work-related conflicts

by

(b) providing an overview of the opinions given by the four groups involved (the company medical officers, the employees, their superiors, and the Human Resources Management staff) in regard to the influence of work-related conflicts on the illnesses of the employees and in regard to the role of the company medical officers in work-related conflicts.

Application

The precise formulation of a research objective depends on the type of case study research.

Theory-Developing Research Project

Because case study research focuses on understanding complex problems in a few number of cases in situ, it is ill suited for theory-testing. Therefore, in theory-oriented research the overwhelming majority of case study research projects are concerned with *theory development*. A theory-developing research project helps fill the gaps in constructing a theory.

Project Context

The development of modern technology within the study of organizational communication opens up new perspectives. Working at home, interactive networking, and other kinds of working away from the office can be realized more easily than before. So far, little research has examined the effects of virtual communication on the quality of services rendered by organizations and companies in terms of effectiveness and efficiency. This type of work organization is not widespread, although some banks and insurance companies appear to be experimenting with different forms of virtual communication.

Research Objective

(a) The research objective of a dissertation project is to further develop the theory on organizational technology, in particular in regard to the consequences virtual communication will have on the effectiveness of the service offered

by

(b) comparing the effectiveness of the service rendered in the administrative process of banks and insurance organizations that have recently introduced virtual communication with the effectiveness of the service rendered in banks and insurance organizations that have not introduced virtual communication.

Diagnostic Research

Case study research is very well suited for practiceoriented research, in particular for practice-oriented diagnostic research and evaluation research.

Diagnostic research consists of a *problem analysis* and a *background analysis*. First, the problem needs to be identified as such. The exact problem, and why it is a problem, needs to be made clear. The researcher can do this by analyzing the gap between the actual situation and the target situation. *Background analysis* aims at clarifying the factors that have caused the identified problem. By understanding the cause and background of the problem, the researcher can choose a course of action to take to find a solution. In case study research, background analysis is often based on a comparison of the stakeholders' opinions.

Project Context

Party X was defeated on election day, and the loss was much greater than expected. The party management had no idea which of the many possible factors had caused this defeat the most. Did the party leader lack charisma? Was it the unappealing election campaign? The attraction of the competing parties' programs? The party management wants to know more about the background relating to the election defeat.

Research Objective

(a) The research objective is to make recommendations to the party management for improving future campaigns

by

(b) making a diagnostic gap analysis in which the characteristics of the actual election results will be compared with the desired election results and by providing an insight into the opinions of the stakeholders in regard to the influences of the most important factors, which might account for the electoral losses.

Evaluative Case Study Research

Evaluative case study research focuses on the results of an intervention that has been carried out to improve a particular situation. Evaluative research can consist of a *plan evaluation* (e.g., Has the plan proved to be feasible and expedient?), a *process evaluation* (e.g., Has the plan been implemented well?), and a *product evaluation* (e.g., Are the results obtained satisfactory?).

Project Context

For several years, the Ministry of Home Affairs has been engaged in supporting municipalities by implementing a computerized system for *municipal population administration* (MPA). The ministry has had difficulties in managing these computer projects: They take up too much time, they are too expensive, and the functionality is poor. Two years ago, the ministry implemented a new project management method, Y. This methodology promised to yield efficient project management. However, the question remains: Has Project Management Method Y been successful?

Research Objective

(a) The research objective is to make recommendations to the information technology manager of the ministry in how to improve the management of MPA projects

by

(b) assessing how effective the implementation of Project Management Method Y has been, based on a product evaluation regarding the functionality, cost control, and duration of the MPA projects in four large municipalities when adopting Project Management Method Y.

Critical Summary

To be successful, a case study project needs to define an effective research objective that is useful, feasible, unambiguous, and informative. The precise formulation of a research objective depends upon the type of research conducted, but the objective must always describe clearly how the research project can contribute to solving the theoretical or practical problem.

Hans Doorewaard

See also Research Framework; Research Questions, Types of

Further Readings

Verschuren, P., & Doorewaard, H. (2009) *Designing a research project*. The Hague, the Netherlands: Lemma/Boom.

RESEARCH PROPOSALS

A case study research proposal lays out in detail the various stages, elements, and boundaries of research to be developed.

Conceptual Overview and Discussion

A clear, concise, well-thought-out proposal is critical to the success of case study research. In his groundbreaking work on case study research Robert Yin suggested that a *case study* is a type of empirical inquiry that is best employed to investigate contemporary phenomena within their reallife contexts, especially when the boundaries between the phenomena and context are not clearly evident and when multiple sources of evidence are required to thoroughly investigate the case. Such research is necessarily complex; without a well-laid-out plan researchers can easily go astray. All research should begin with defining the research question. This process is critical to determining what research method will best answer the question. In general, "what" questions tend to be about exploring a phenomenon or concern about the prevalence of a phenomenon. It is the "how" and "why" questions, especially those for which the researcher cannot control the variables, that are best answered through case study research. In preparing for such research, the research proposal is a key part of the process.

Application

Step 1: The Research Question and the Literature Review

The first step in writing any research proposal is the definition of the research question. This is often a difficult process. In case study research this task involves demonstrating how the question is either a "how" or "why" question and why a case study method is the appropriate design. It is critical to see the literature review as an integral part of defining the research question. Refining and defining the research question needs to be seen as an iterative process. Curiosity about a phenomenon leads to the examination of the literature, which in turn leads to the refining of the phenomenon until a clear statement of the research question is possible. The two are intertwined and cannot be separated.

Step 2: A General Description of the Proposed Research

The second step is the general description of how the researcher plans to answer the research question. This description should include why the question is important enough to answer, who the intended audience of the completed research is, and how the findings will be presented. Here the researcher can show the assumptions that are being made. He or she may want to clearly define the epistemological and conceptual underpinnings of the specific research paradigm being suggested. In a broad way, the researcher may also want to discuss what he or she is intending to accomplish with this research, who will be involved, and how issues such as confidentiality and informed consent will be dealt with. This next section provides a more detailed discussion of the actual research method.

Step 3: The Research Method

The third step is a thorough, detailed description of the research methods to be employed. Here the researcher presents all aspects of the research design. What sources of evidence will be used? What are the units of analysis? Both quantitative as well as qualitative evidence are employed in case study research. What combinations are being suggested here? How will the data be analyzed? How will the data be used to shed light on the case? How is the researcher guarding against a lack of rigor in the approach? Case study research has historically been criticized for lack of rigor caused primarily by investigator bias creeping into the study. How will the researcher guard against that?

Will the researcher be able to generalize the study results to other contexts/populations? One must be clear that the goal of case study research is *analytical generalization*, to expand and generalize theories, not *statistical generalization*, which is to enumerate frequencies. One of the most common criticisms of case study research is that it often results in masses of unusable data and that it goes on for far too long. How will the researcher guard against this possibility? How will the researcher ensure that the findings are presented as parsimoniously as possible?

Given the complexity of case study research it is essential that all proposed components of the design meet the standard tests for validity and reliability. There are three aspects of validity. The first type, construct validity, is particularly difficult in case study research. Researchers are often accused of using subjective data to make their case. In the research proposal the researcher shows how he or she will prevent this by using multiple sources of evidence, establishing a chain of evidence, and having the findings reviewed by key informants. Also, especially if a causal or explanatory study is planned, the researcher must deal with threats to the second type of validity, internal validity. It is important that the researcher describe how inferences will be made; what evidence will be used to state that a particular event was caused by an earlier event? Third, external validity must be addressed. How will the researcher generalize the results from this study?

When addressing reliability, the key is being able to have another researcher replicate the research. Central to this is leaving a clear trail of documentation. This trail begins in the creation of the proposal. By providing a detailed blueprint of the research, a clear proposal will make it much easier to accurately document the actual research itself and thereby increase the likelihood of completing a reliable study. An axiom regarding reliability in case study research is for a researcher to proceed as if someone is watching the researcher's every move. Researchers would do well to keep this mind when crafting the proposal and ask the very simple question "Will someone else be able to follow my plan?" or, more important, at the proposal stage: "Will I be able to do what I say I am going to do?" In the proposal it is critical that the researcher describe how this will occur. How will

data be recorded? Will the researcher's process notes be used? In short, how is the researcher going to leave a trail for someone else to follow?

It is very important that the researcher prepare for the research proposal to be vetted by a research ethics board or similar process. In preparation for this, the proposal could include a completed research ethics application package showing how all of the possible ethical issues will be addressed. Such documentation should include copies of all forms and questions, such as informed consent forms and research protocols. At the very least, the researcher should indicate in the proposal how research ethics approval will be obtained and demonstrate to those reviewing the proposal that all aspects of this very important process have been adequately addressed.

Step 4: The Report

The fourth step is for the researcher to ask how the findings will be presented. The researcher should describe in the proposal what he or she thinks the findings will look like. He or she should anticipate how much data there will be and how those data can best be presented. The researcher needs to think about how he or she will show evidence of techniques such as triangulation or meta-synthesis or statistical analysis. The goal is parsimony: What will be done do to ensure that the findings are presented as clearly and concisely as possible and in such a way that the case is illuminated to the reader? The researcher should also consider what will be done with information that does not fit with what is expected. The researcher needs to describe that he or she will be open to such possibilities and that such information will be included in the final report. Last, the researcher should consider the limitations of proposed study and clearly present these limitations in the proposal document.

Step 5: Proposal Review

It is critical that the proposal be presented to a group of peers and experienced case study researchers. More sets of eyes, especially the collective experience of seasoned researchers, will strengthen any proposed research. Many lessons have been painfully learned through conducting case study research. This knowledge must be shared during the process of creating research proposals if researchers are not to continue making the same

errors. This iterative process is obviously critical to new researchers embarking on their first project; however, it is just as critical to experienced researchers embarking on their newest project. Sharing hard-won knowledge is a key component of creating excellent case study research, and that exchange must begin as part of creating proposals for case study research.

Critical Summary

Many people underestimate the difficulties inherent to case study research. A well-done proposal will highlight this difficulty, ensuring that the researcher clearly understands what it is that he or she is embarking on, as well as how he or she will proceed, thereby increasing the likelihood that the research will be conducted efficiently. A thorough research proposal will clearly indicate the researcher's understanding of the research paradigm and the specifics of the research methodology and will be clear enough to prepare the way for eventual replication. The research proposal seeks the saturation point to ensure that, as much as is possible, all aspects of the proposed research have been adequately considered. A clear, concise research proposal is the key to effective case study research.

Henry Harder

See also Dissertation Proposal; Generalizability; Qualitative Analysis in Case Study; Quantitative Analysis in Case Study; Sampling; Validity

Further Readings

Yin, R. K. (1984). Case study research: Design and methods. Beverly Hills, CA: Sage.

RESEARCH QUESTIONS, TYPES OF

A research question is a question the researcher asks himself or herself in order to carry out a case study project successfully. These questions are formulated in such a way that the answers yield the necessary information for accomplishing the research objective. Because different kinds of information are needed in the distinct phases of a

case study project, the researcher formulates different sets of research questions for each phase accordingly.

Conceptual Overview and Discussion

Two requirements must be met in order to formulate a proper set of research questions. First, research questions must have a *steering function*, because they are supposed to navigate the researcher along the complex journey of accomplishing the case study project. Second, the set of research questions needs to be composed in the most *efficient* way.

The term *steering function* refers to the activities that need to be performed in the course of the project. Because a distinction can be made between the *theoretical* and the *empirical* parts of a case study, the steering function requires that each research question be formulated in such an unambiguous way that the answer clearly contributes to either the theoretical or the empirical part. Therefore, it is logical that the researcher should formulate at least two sets of research questions, one regarding the theoretical phase and one regarding the empirical phase.

Efficiency refers to the degree of knowledge that yields the answers to the research questions. A set of efficient research questions consists of questions that provoke information in a cumulative way; the answer to each question that follows adds to the already-existing information that has resulted from previous research questions. This implies that the combined answers of all the research questions will provide the researcher with the exact information needed to complete the research project successfully.

The construction of a well-designed research framework helps the researcher formulate a set of steering and efficient research questions. The researcher subdivides the research framework into the identifiable components. For each of these components the researcher formulates a coherent set of adequate research questions. The generic structure of a research framework of a case study (deductive research, case comparison) is presented in Figure 1.

The framework consists of three parts. Part (a), which is indicated by the broken line (————), encompasses the theoretical part of the study. In a deductive case study the researcher studies the

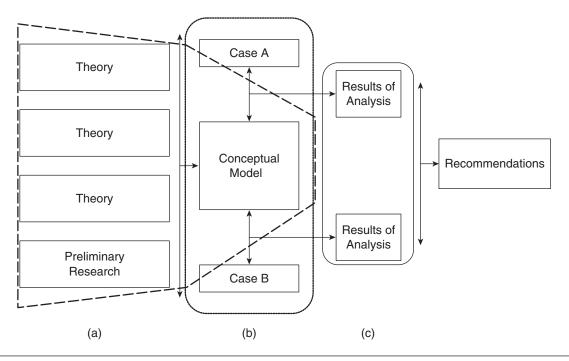


Figure I Generic research framework of a case study (case comparison)

relevant theories and carries out a preliminary study in order to select which aspects of the core concepts will be part of the research and how to define the assumed relationships between these aspects. In so doing, he or she constructs the conceptual model of the project. In this phase the research formulates a theoretical core question and a number of related subquestions. It is advisable to formulate subquestions in regard to each of the core concepts. The theoretical subquestions are formulated in such a way that the combined answers to all of them result in the conceptual model.

Part (b) of the research framework, represented by the dotted line in Figure 1 (....), pertains to the empirical part of the study. The researcher formulates an empirical core question and related subquestions to collect factual information regarding the elements and relationships mentioned in the conceptual model.

Part (c) of the generic framework relates to the analytical part of the research, presented by the continuous (solid) line. In a case comparison project the researcher focuses on the similarities and differences between the analyses of each case. Some researchers prefer to formulate a number of analytical research questions in addition to the theoretical and empirical research questions.

Application

Piet Verschuren and Hans Doorewaard describe a practice-oriented, deductive, case comparison research, carried out by a student enrolled in a master's degree program in business administration in the Netherlands. Every 3 years, a large bank carries out an employee satisfaction survey (ESS). However, the personnel manager has expressed his doubts about the reliability and the validity of the ESS, and the master's student has been asked to carry out an evaluative research as part of her thesis.

The research objective was to make recommendations to the personnel manager about how to improve the reliability and validity of the company's ESS by providing insight into the influence of the content and form of the ESS and the competences of the company's research team regarding the reliability and validity of ESS 2001 and ESS 2004.

On the basis of the research assignment, the student developed a generic conceptual model consisting of the dependent variables (a) reliability and (b) validity and the independent variables (a) content, (b) form, and (c) research competencies. In addition, she constructed the research framework depicted in Figure 2.

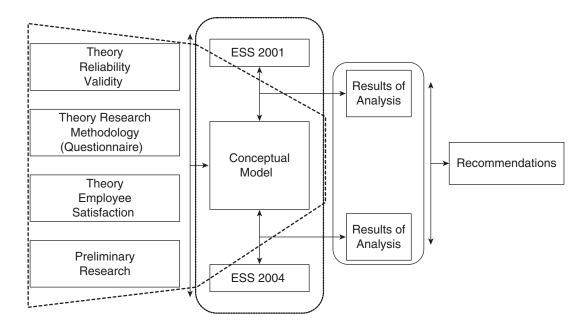


Figure 2 Research framework for employee satisfaction surveys (ESS) study

The first set of research questions concerns the theoretical part, Part (a) of the research, and includes the theoretical core question and subquestions in regard to the development of the conceptual model. The theoretical core question is worded as follows:

According to the relevant organizational literature, which characteristics, of content, form, and research competencies in a survey research have a positive or negative effect on the relevant characteristics of the reliability and validity of an ESS?

The researcher formulates the following set of subquestions:

- Which are, in this case, relevant characteristics of content in a survey research?
- Which are, in this case, relevant characteristics of form in a survey research?
- Which are, in this case, relevant characteristics of researcher competencies in a survey research?
- Which are, in this case, relevant characteristics of reliability of an ESS?
- Which are, in this case, relevant characteristics of validity of an ESS?
- What do we know, from previous research and theory-building, about the influences of the relevant characteristics of content, form, and

researcher competencies on "the characteristics of reliability and validity of an ESS?"

The author should verify that the combined answers to these subquestions provide the information needed to answer the theoretical core question. The second core question and related subquestions concern Part (b) of the research framework, the empirical part. The empirical core question in this example is worded as follows:

What is the influence of the relevant characteristics of content, form, and researcher competencies on the relevant characteristics of reliability and validity of ESS 2001 and ESS 2004?

The researcher subsequently formulates the following set of empirical subquestions for *each* of the two research objects: EES 2001 (a) and ESS 2004 (b):

- Which of the relevant characteristics of content in a survey research do we recognize in ESS 2001 (a) and 2004 (b)?
- Which of the relevant characteristics of form in a survey research do we recognize in ESS 2001 (a) and 2004 (b)?

- Which of the relevant characteristics of research competencies in a survey research do we recognize in ESS 2001 (a) and 2004 (b)?
- Which of the relevant characteristics of reliability of an ESS do we recognize in ESS 2001 (a) and 2004 (b)?
- Which of the relevant characteristics of validity of an ESS do we recognize in ESS 2001 (a) and 2004 (b)?
- Which theoretically assumed influences of the relevant characteristics of content, form, and researcher competencies on the characteristics of the reliability and validity of an ESS do we recognize in ESS 2001 (a) and 2004 (b)?

The answer to the empirical core question provides sufficient information for answering the third analytical research question, which pertains to Part (c) of the research framework:

What can we learn by comparing the similarities and the differences between the results of analysis made of ESS 2001 and the results of analysis made of ESS 2004?

The answer to the analytical research question provides the researcher with sufficient information to make recommendations in regard to the improvement of the reliability and validity of the company's ESS, which the researcher promised to deliver, as formulated in the research objective.

Critical Summary

A well-structured set of theoretical and empirical research questions helps the researcher pave the way through the complex phases of case study research. It is important that the researcher selects and formulates the set of questions in such a way that the combined answers to all the questions can provide the information needed to complete the research project successfully. A well-designed research framework helps the researcher complete this task.

Hans Doorewaard

See also Conceptual Model: Causal Model; Research Framework; Research Objectives

Further Readings

Verschuren, P., & Doorewaard, H. (2009). *Designing a research project*. The Hague, the Netherlands: Lemma/Boom.

RETROSPECTIVE CASE STUDY

Retrospective case studies are a type of longitudinal case study design in which all data, including first-person accounts, are collected after the fact. The events and activities under study have already occurred, and the outcomes of these events and activities are known. In retrospective case studies a time line of events and variables that changed over the time period is *reconstructed* after the events have occurred.

Conceptual Overview and Discussion

All retrospective case studies have three factors in common: (1) data are collected after the significant events have already occurred, (2) researchers have access to both first-person accounts and archival data, and (3) the final outcomes—which were presumably influenced by the variables and processes under study—are already known when data collection takes place. Although investigators cannot observe events that occurred prior to the outcome (which would have helped them construct a time line of events or changes in variables), they do have access to individuals who did directly observe and/ or participate in the events. Retrospective researchers can, of course, include observations about the final state of a process outcome. Todd Chiles and his colleagues did this when they observed the current end state of the tourism industry as it centered around Branson, Missouri, at the end of their time line analysis in 1995, within a retrospective case design that also covered 100 years of regional development.

Retrospective case studies are one of three types of longitudinal case study designs. They are different from *concurrent designs*, in which data are collected in real time over successive periods as the events and activities in an organization are occurring. The 18-month case study Tyrone Pitsis and his colleagues conducted on large-scale project

management practices for the 2000 Olympics in Sydney is one example of a concurrent design. Retrospectives are also different from *historical designs*, in which the events in question occurred far enough in the past that no relevant informants are available and investigators must rely solely on secondary documents and cultural/physical artifacts. Andrew Hargadon and Yellowlees Douglas's case study of Thomas Edison's efforts to commercialize the electric lighting system in the United States is one example that illustrates the historical design.

These three types of longitudinal case studies differ along two dimensions: (1) whether the events being studied have already occurred and (2) whether researchers have access to informants who were involved in the events or phenomena being studied. Both retrospective and concurrent case study designs typically include informant interviews in the data set, whereas historical designs do not. In both retrospective and historical designs the events have already occurred, and process outcomes are known, but in concurrent designs the final outcomes are not yet known. Retrospective designs are often more efficient than concurrent designs, because the latter require researchers to wait until the passage of time creates the intended changes in processes or variables. Retrospective designs take advantage of the fact that data are collected from multiple prior periods all at once.

Application

Under a variety of research philosophies—positivist, interpretivist, and critical, for example—retrospective case study designs have several practical advantages that make this methodology well suited in at least three basic situations for studying changes that took place over time.

Extreme Case/Critical Instance

The first approach is to examine a single instance that holds some unique interest; illustrates an extreme case; or serves as a critical test of a theory regarding a phenomenon, problem, or strategy. Single-organization retrospective studies can be very insightful and provide interesting findings about a prior event. This approach is suitable

for situations in which a new interpretation of an existing event or phenomenon is sought, but the event or phenomenon in question has such a long gestation period that concurrent study is unattractive or impractical. Frances Amatucci and John Grant's examination of the 10-year period leading up to the merger of Gulf Oil with Chevron in the 1980s, by far the largest merger in history at that point, is one example of an extreme case that in this instance illustrates how easily large companies can experience decline. One caveat of this approach is that the conclusions drawn from extreme or critical instances can be limited as an empirical technique because, by definition, they rely on a single extreme case; as Nicolai Siggelkow points out, however, it is not generalizability but illustration and inspiration that motivate these types of case studies.

Multiple Recurrences

A second approach that helps to overcome this limitation is to examine the time line of events or outcomes in a recurring process in a single organization. Variance is represented by within-group differences in a process that involves a repeating cycle. This approach may be appropriate for research questions that investigate experiential effects, such as how individuals within an organization change routines and practices over time, teaching students, hiring employees, or counseling clients, for example. This approach is most suitable when the focus of the study is on processes that recur over an extended period of time and archival documentation is available, as are willing informants. Mary Crossan and Iris Berdor's case study of the organizational learning that occurred in strategic planning as the Canada Post Corporation developed a new corporate direction between 1981 and 1991 provides an instructive example of this type of design. Retrospectives can be a particularly efficient methodology when there are opportunities to study an extended series of recurring processes that would otherwise involve a great deal of time elapsing between data collection periods, which increases the possibility that interest in the research questions may decline or that access to organizations, informants, or archival material may be lost.

Multiple Organizations

A third approach is to examine a similar or comparable process, time line of events, or outcome, in two or more different organizations. Empirical variance is represented by betweengroup differences in the process, time line, or outcome. Rajiv Sabherwal and colleagues' multi-site case study of the organizational dynamics involved in fitting departmental and organizational strategies together is one example of using multiple organizations to compare and contrast change processes in three different organizations. This approach may be appropriate for research questions that investigate how different organizations respond to a similar stimulus, either internal or external, where again the process occurs over an extended period of time and archival documentation as well as willing informants are available.

An important benefit in all three retrospective designs is the ability to apply a longitudinal design without having to wait for the passage of time to produce the desired effects. Note that the last approach does not take into account the effects of past performance or past experience on subsequent outcomes, but because it involves multiple organizations it is better able to take into account factors such as different environmental or organizational conditions.

Limitations

Retrospective designs are subject to at least two threats to validity beyond those typically associated with case study designs. The first threat is the recall effect, which Brian Golden shows can introduce inaccuracies because of the interviewees' imperfect recall of historical events. Recall effects can be even more of a problem the further back in time an interviewee is asked to recall, because the possibility for the order and relative importance of events to become conflated increases can increase with time. Because retrospective designs typically include first-person interviews about prior events it is important to consider memory limitations and biases. One technique that Golden suggests to limit bias is to limit respondent interviewing to questions about what occurred, the events and related hard facts, and to acknowledge possible emotional attachments that may influence the accuracy of respondent recall. Although this practice does not guarantee that different people will recall the same objective event in the same ways it does serve to limit some of the subjectivity involved in retrospective methods.

The second threat is the spoiler effect, which arises from the inadvertent skewing of results that can occur when researchers have prior knowledge of the outcomes associated with a sequence of events. In particular, there is a concern that analysts may inadvertently overemphasize elements of a data set that support a particular conclusion or hypothesis and/or underemphasize nonsupportive or inconsistent data. Andrew Van de Ven and George Huber argue that prior knowledge of the outcome of a process in terms of "successful/ unsuccessful" or "pass/fail" will inevitably create an opportunity to shape observations and interpretations to support the expected outcome. Investigators have an added responsibility in retrospective case studies to demonstrate objectivity in results and conclusions drawn from retrospective cases through such steps as specifying and following established data collection and analysis protocols and using member checks (see Validity and Reliability entries, this volume).

Critical Summary

Retrospective case studies are most suitable when the research question focuses on longer term changes taking place in a process, variable, or general phenomenon. The longer the temporal period required to detect changes that are occurring, and the greater the availability of respondents who can provide first-person accounts from the process or period in question, the more appropriate a retrospective case design becomes.

Retrospective case study designs have both strengths and weaknesses. On the positive side, these designs have certain efficiency and effectiveness characteristics in their favor. Because a researcher is not limited to collecting data in real time as a process is unfolding, retrospective case studies are more efficient relative to concurrent designs, and they allow longer time lines to be evaluated. Retrospective case study designs also allow for more effective data triangulation relative to historical case study designs because (a) first-person accounts can be checked against

historical documents for the recall accuracy of interviewees and (b) first-person recounts can add rich context and understanding to historical documents.

Although these benefits make retrospective designs a viable alternative to concurrent and historical designs, there are trade-offs involved. Retrospective designs are subject to additional validity threats that other designs are not. Historical designs are not subject to recall effects, and concurrent designs are not subject to spoiler effects, but retrospective designs are subject to both of these effects.

Chris Street and Kerry Ward

See also Longitudinal Research; Reliability; Validity

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RE-USE OF QUALITATIVE DATA

Re-use (or secondary analysis) of qualitative data consists of reworking one or more sets of qualitative data with the purpose of addressing research questions that can differ from those of the initial research project. This method shortens the data collection phase and allows the researcher to focus on data analysis and to think closely about theoretical questions. Re-use may involve unprocessed data or case studies.

Conceptual Overview and Discussion

Even though the method is a common practice when one deals with quantitative data, re-use of qualitative data is familiar in case study research but has no systematic approach. Nevertheless, several types of re-use can be distinguished, leading to the identification of potentialities—and the main difficulty, accessibility—of this kind of methodological approach.

Types of Re-Use of Qualitative Data

Janet Heaton distinguishes five types of re-use according to the following two structuring dimensions: (1) purpose of the re-use with respect to the initial study (new or the same) and (2) one or multiple qualitative data sets. The five types of re-use are discussed in the following paragraphs.

First, re-analysis of qualitative data is conducted on a single set of data or on a unique data source. It consists of replicating the initial research project to verify whether it supports the original interpretations. The results can be confirmed and validated or questioned and refuted. This may allow the researcher to check the robustness of the results of a former study by using new techniques of data analysis.

It is then possible to conduct re-use by means of the second type, in which the researcher seeks, with one set of data, to treat a new research question, which may consist of a supplementary research question (additional analysis), digging deeper into the initial research question, or by using the third type of re-use, addressing a new research question (*supra-analysis*). In the former case, the additional analysis consists of proceeding with a more in-depth analysis of a

subset or a singular aspect of the data. In the latter case, the objective is to reintroduce data into a frame that potentially goes beyond the initial analysis.

The last two forms of re-use consist of simultaneously mobilizing distinct sets of data, or data derived from different research projects. In an amplified analysis, which is the fourth type of re-use, data from different studies on the same topic are crossed in order to observe common and distinct points. There is thus a certain unity in the formulated questions, and the re-use here takes on the form of a comparative analysis. Finally, in the fifth type of data re-use, *assorted analysis*, in which materials from various studies are diverted from the purposes for which they were initially collected to become part of a new research project.

Accessibility

The re-use of qualitative data addresses ethical questions in part related to the quality/reliability of re-used data. However, the main problem is how to access the data.

First, data may come from previous research projects performed by the same researcher. Second, the existence of data collected and processed within a laboratory enables access to those data. These domestic opportunities reduce research costs and limit the control procedures, but the sturdiness of outcomes depends on the transparency. Third, the re-use of data usually arises out of social interaction among (and the social lives of) researchers, including professional conferences and workshops. Finally, institutional programs aim at permitting direct access to qualitative databases and sharing them among researchers, enabling re-use on a broad scale (e.g., the Qualidata program in the United Kingdom).

The level of data accessibility influences the possibility of re-using high-quality data. Indeed, the possibility (or not) of having access to the data and to the authors of the original study, and even to their procedure manuals, is important for evaluating the robustness of the original research process. They make it possible to ensure protocol quality or clarify any eventual hazy areas or interpretation problems that may crop up in practice. Pamela Hinds, Ralph Vogel, and Laura Clarke-Steffen identified key questions regarding accessibility:

- Where, when, and how to access data?
- Are all data accessible, or are only partial data accessible (e.g., transcriptions of interviews or recordings)?
- Have the respondents accepted the re-use of the data in the study?
- Are there any conditions of use for the set of data?
- Can authors of the primary study be consulted when needed?

Modus Operandi

Scholars have proposed a data evaluation grid aiming at evaluating the possibility of the practice of re-use. The objective is to verify that the original data comply with the formal conditions of re-use. Beyond the necessity of having contextual information on collecting original data (to be sure the data of the initial study were collected according to a transparent process), one has to validate both the adequacy of data and their quality.

Adequacy

Adequacy between the initial data and the research project has to be confirmed. The problem of adequacy will be more or less quickly solved depending on the type of re-use. When the objective consists of replicating the study or of comparing two studies (re-analysis or amplified analysis, respectively), the use of the same set of data is acceptable. When the materials are diverted from the final objectives of the initial research, the question should be raised as to the capacity of the original data to handle the research question, of meeting objectives and content requirement, and so on. Should the data be in part obsolete, ambiguous, or insufficient in quantity and quality, or should the contextualization be too heavy, the researcher will seek to usefully complete the set of data being rehandled by data derived from other research products, or even by an original collection of current data. The scholar has to check data uniformity and compatibility derived from different research projects.

Quality

The quality of data set has to be verified. Does the researcher really have all the information in a form suited to his or her handling needs? The secondary

researcher may encounter practical difficulties for judging data quality or assessing the completeness of the information, specifically when he or she reworks materials derived from semistructured interviews. The complete and adapted recording of interviews also seems, in practice, difficult to verify. If access to the transcriptions is minimal, one can lose some elements of context (intonation, silences, hesitations, etc.). The judgment of the secondary researcher is important because, given the elements in her possession, she has to consider as valid (or not) the data she possesses. The nature of materials can doubtless play a role regarding this point: Work based on published study data allows one to consider that the initial study was already finely screened using rigorous scientific criteria.

The qualitative audit of data differs whether the approach is articulated around data of the same research project or data derived from several projects. In particular, verifying the uniformity of data assembled from different research projects will be essential to the execution of re-using.

Finally, analyzing data quality depends on whether the materials in question are diverted from the final objectives of the original research. If the secondary researcher is the initial author of the project or projects, examining data quality will take on specific importance and meaning. Hence, in the reanalyzing process the researcher will stress the reliable nature of the initial study results and, in particular, its veracity. Spotting a defect in the quality of initial data could lead one to question the scope and pertinence of the initial study. In other words, re-using resembles here a process of rereading a work of research.

Application

Two examples of re-use of qualitative data are Karl Weick's 1993 study of the Mann Gulch disaster, based upon Norman Mclean's book that describes a fire in which 13 firefighters lost their lives in Montana in 1949, and Nancy Staudenmayer, Marcie Tyre, and Leslie Perlow's 2002 article about organizational change and time experience in which they rework their three independent studies. Weick's study is an example of supra-analysis, identified earlier in this entry; Staudenmayer, Tyre, and Perlow's is an example of assorted analysis.

Weick's approach is close to induction. His study addresses two main questions: (1) Why do organizations unravel, and (2) how can they be made more resilient? He proposes a plausible analysis of events examined in Mclean's book in order to suggest some recommendations on the means of improving the resilience of organizations. Weick carefully retraces Maclean's methodology, because 28 years separate the disaster from Maclean's work. Weick's concern is also to purge the work of its elegant prose and tragic dimension to retain only the events and review them in order to produce a context that lends itself to analysis. Weick emphasizes the wealth and variety of the collected material and the means of investigation selected by Maclean, who conducted interviews with the last two actors of the event as well as with expert appraisers; he was very cautious with respect to direct witnesses. Records of trace marks and certain physical evidence of past behavior, exceptionally well preserved, were examined, as well as numerous archives (reports following the event, official records, legal reports after litigation, photographs, etc.). Maclean visited Mann Gulch three times, including once with the two survivors with a view to reconstructing the facts (a triangulation had taken place to check for inconsistencies). Once, he reproduced the course of events relating to the firefighters under conditions as close as possible to those of the tragedy, constantly comparing photographs and maps with actual event. The author's personal experience was directly involved in the case: He had traveled to Mann Gulch while the fire was still active, and he had lived through a similar experience when he was a young firefighter. Finally, discrepancies in the comprehension of events led Maclean, with two expert appraisers, to the mathematical modeling of the spread of fire.

During informal discussions, Staudenmayer, Tyre, and Perlow note that their three independent studies, each conducted in the area of organizational change, reported situations in which key events altered the daily work pace and hence affected the individual and collective experience of time. These events seemed to facilitate organizational change. The authors decided to return to the initial data to highlight the fragments documenting the concept of time and its role in organizational change. The

inductive approach hence aimed at developing the theory based on a design that cross-examined the data of the three independent cases. At first, a broad question enabled the structuring of the project: What role does time play in change? The synthesis of each case highlighting the unique relationship between time and change enabled each author to be cognizant of the entire set of cases. With the relevance being confirmed, and the relationship between time and change proven in each of the cases, various questions began to emerge. Stories of change served as an analytical instrument for facilitating intersite comparison. Each change was peeled right down according to a given sequence: pre-existent situation, event disturbing the work pace, interpretation of the time and events of the situation per individual, and nature of the resulting effects over the short and long term. The authors used the constant comparative method: Stories of change were compared by pairs, first within one case and later among the cases. They identified the key components shared by the three sites and the manner in which they were similar or different for each site.

Critical Summary

Re-use of qualitative data constitutes a relevant manner in which to draw on the reservoir of the potential of qualitative data, to open the pathway to renewed questioning regarding qualitative studies. Nevertheless, returning to the conditions of data production allows one to legitimize the re-use of qualitative data.

Olivier Germain and Didier Chabaud

See also Comparative Case Study; Contextualization; Reliability; Replication; Secondary Data as Primary

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RHETORIC IN RESEARCH REPORTING

Research reporting today has many possible forms, typically including a printed or electronic written document, a public reading of a paper, or a public presentation with projected outlines and illustrations. Others are certainly possible. Whether written or spoken, research reporting is a form of communication and as a meaning-making process can best be understood when a research report is conceived as a type of literary work and a research presentation as a performance. Both are encoded with meaning and are intended to communicate that meaning to a reader or audience. Both are, therefore, subject to rhetoric.

What Is Rhetoric?

The concept *rhetoric* includes all presentational and performative aspects of communication that carry meaning beyond the literal denotative (logical) meaning of the text. In addition, it includes strategic substantive communication crafted for a particular audience to elicit a particular response based on that audience's reality—their expectations, values, fears, and so on. In current media language, we could say rhetoric is "spin."

When the concept of rhetoric was first defined by Isocrates and Aristotle it essentially addressed "civilized speech" and especially oratory in the rising democratic "polis." Aristotle viewed knowledge and meaning (episteme) as denotatively fixed and definite. He considered this episteme gained through dialectic as superior to rhetoric, which he considered mere opinion (doxa). He and his followers denigrated Isocrates and Sophist rhetoric. With the Enlightenment and the rise in the modern scientific age of logic, empiricism, and the scientific method, rhetoric

was seen as weak and deceptive, while modern science seemed objective, logic, and proof based. Today, however, knowledge is no longer viewed only in Aristotelian terms, as denotatively fixed and definite. Communication is increasingly seen less in Aristotelian terms and more in Isocratic terms, meaning there is an emphasis on its intersubjective and performative aspects. Scientific writing itself is seen as a rhetorical form spinning meaning toward the perception of objectivity and fact. The concept of rhetoric is now applicable in all forms of communication.

Rhetoric in Research Writing

Two dimensions of rhetoric apply to written research reports: (1) presentational aspects of communication and (2) strategic content choices. Presentational aspects include, for example, literature type; vocabulary; writing style; and inclusion of tables, graphs, and illustrations. Case studies tend inherently toward multimethod research with multiple types of data and approaches to analysis. The reporting of this can then lead toward scientific propositional expository prose or toward more expressive qualitative narrative.

The scientific research report is now recognized as a literary type—a specific way of crafting words. The scientific paper typically has a particular form: Introduction, Method, Results, Analysis, Conclusion (IMRAC). It most often features some tables or charts. It is usually third-person passive propositional writing dense with details and explanations featuring extensive referencing. The rhetoric of the scientific paper is disinterested objectivity, authority, and credibility.

The qualitative research report often mimics aspects of scientific report rhetoric to gain academic credibility but with the almost-essential feature of inserting participant quotations in just the right balance—not too few and not too many. It also has the inevitable use of first person. However, increasingly holistic meaning communication is becoming a goal, and qualitative researchers are crafting their own new forms. Artistic forms are becoming evident in qualitative research, not in the whole report but in sections of it, for example, poetry (Adler, 2002), visual art (MacArthur, 2008), story (Adler, 2002), drama script (O'Toole, 1994), and film script (Vitale,

2002). [Note: This use of references is a departure from the rhetoric of this encyclopedia. Also, this "Note" pointing to an example of "rhetoric" is itself an infringement of the rhetorical policy of this encyclopedia.] Expressing meaning in addition to stating meaning is part of the qualitative rhetoric espoused by constructivist scholars who also want to shed authority, devolve interpretive power, and acknowledge the role of the reader in co-constructing meaning. The writer of the knowledge representation called the research report chooses to situate the communication on an interpretive continua: propositional to nonpropositional, discursive to nondiscursive, hermeneutically closed to hermeneutically open. Rhetoric varies along these continua.

Style is an important part of rhetoric in all research writing. Within the scientific writing paradigm anomalies can make the presence of the rhetoric of style blatant. For example, Randy Moore contrasts two significant biology papers about DNA: (1) James D. Watson and Francis H. C. Crick's 1953 paper, whose rhetorical choice was to write concisely, in the first person, with simple, forceful, and persuasive language, confident of their claims and the importance of their work, and (2) Oswald Avery, Colin MacLeod, and Maclyn McCarty's 1944 paper, in which they chose the traditional rhetoric of science—lengthy, detailed, dense, disinterested description designed to appear important, objective, and factual. However, Moore pointed out, the paper by Watson and Crick had a strong impact on biology and stands as a model of rhetoric in scientific writing, whereas the Avery, MacLeod, and McCarty paper languished in obscurity.

Qualitative research is conducted by scholars from a range of theoretical perspectives. The specific perspective may have a unique discourse with a vocabulary of specific meanings for the insiders of the discourse. The use of this vocabulary or discourse can be a highly important rhetoric for these scholars that can lead to increased or decreased acceptance by the wider community, as is a possibility with all rhetoric. For example, Richard Dawkins believes that some postmodernists mask weak ideas with intentional obfuscation. Postmodern rhetoric may, however, serve as the basis for credibility and group inclusion for the adherents to the theoretical perspective.

In addition to presentational form, style, and particular vocabulary, researchers make strategic content choices (what to include and what not to include) both in their research and reporting. The research approach itself accrues to meaning, for example, the use of hypothesis in research places it into "scientific" research. This has been particularly evident in psychological research in the past 50 years. Although there is a nonlinear, emergent, and often-recursive discovery process involved in research, the scientific rhetoric in writing the report requires an intellectual and procedural linearity: The hypothesis comes before the testing of it, and discoveries in data cannot be made if they were not anticipated.

In case study research and reporting the gathering of quantitative data and the reporting of data in table form can be a rhetorical decision to give the report an air of scientific credibility. The decision to interview participants and quote sections of the transcripts in the report may be a rhetorical decision to allow expressive, passionate opinion to be presented in the report.

Rhetoric in Public Presentation

Today, the written text still dominates in the scientific community—researchers go to conferences to "read the paper"—because the rhetoric that adheres to the paper exemplifies greater objectivity, rigor, and control than the rhetoric of the spoken presentation. Increasingly, however, researchers do not literally read a paper, and they may not even have a written paper; they present a verbal report supported by visual elements projected onto a screen. Regardless of "reading" or more spontaneously "presenting," performative aspects of communication in public presentation must be acknowledged and examined.

When a researcher reports verbally to a listening audience, the choices of what to say about the theoretical aspects of a study, the data, the findings, and interpretations or implications are made by the researcher on the basis of factors such as time constraints, the type of audience, the context of other presentations, personal presentation ability and experience, and so on. Inevitably, however, the researcher makes choices of what to include and what to omit, what to emphasize, what to be excited about, and what to be tentative about.

Much of how the listeners will perceive and remember the presentation will be affected by the tone of the presentation, the quality of the voice and delivery, and the attendant gestures and energy—the performative rhetoric of presentation.

A significant part of presentation rhetoric today is the role played by PowerPoint. It has a powerful effect on sequence and emphasis of content, creating a linear structure for ideas. One could argue that the inherent structuring function and need for text magnification contributes to the abbreviation of ideas and fragmentation of thoughts. In other words, the program edits the presenter's ideas. The problem can be seen as an incursion on the rhetorical control the researcher exercised in the past through careful writing and speaking. The researcher must recapture this rhetorical control and employ the potential of software to shape the intended meaning of the communication.

Conclusion

Reporting research is about communication to readers, listeners, and viewers. The meaning they gain from the communication is strongly influenced by the rhetorical spin embedded in the communication. Awareness of this fact by reporters and users of research is important. Although primarily focused on formal academic dissemination here, rhetoric plays a large role in the informal communication of researchers directly through popular print and electronic media. Awareness and control of rhetoric must become as strong for researchers as reliability and validity—because, in fact, it is an issue of validity.

Lee Bartel

See also Discourse Analysis; Discursive Frame

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RIVAL EXPLANATIONS

Rival explanations are at the core of robust analysis in case study research, providing one critical check and balance that increases the credibility of the research findings. An explanation is a description that may clarify the causes, contexts, and consequences of the phenomenon under focus in the case. Explanation is one of the purposes of research; it is a means to uncover new knowledge and report relationships among different aspects of studied phenomenon. A rival explanation is one that competes with the provisionary explanation in its explanatory power. A researcher conceptualizes rival explanations by carefully considering potential arguments from peers or other stakeholders. The researcher attempts to address these rival explanations though rival analysis, a systematic examination of alternative propositions.

Conceptual Overview and Discussion

Rival explanations are derived from good-quality rival analysis. Eminent case study researcher Robert

Stake explains that good-quality rival analysis is achieved when (a) the researcher has shown that the evidence does not suggest something else (i.e., the events happened as the researcher says or supposed they did/would), (b) the evidence is enough to suggest that the event is integrally related, and (c) the explanation of the finding could not have been produced by any other or additional antecedent events. Rival explanations are derived from a systematic and thoughtful examination and understanding of the rich context in which the phenomena occur. Rival explanations are often articulated in the research literature, and they need to be given appropriate attention if the new explanation is to be credulous.

The process of rival analysis adds a richness to the understanding of the phenomenon by illustrating how it can be manifested differently as a result of the influence from factors in the environment or characteristics of the subject. The explanation should address the iteration of the understanding of both the whole and its parts. The process of discerning contributory factors and entities in a case study will help to distinguish whether the case is a typical example of the phenomenon or a deviant example, which enables an evaluation of the relative explanatory power of the case in relation to the emerging theory.

Rival explanations challenge whether the significant aspects of the phenomenon that the researcher attributes to the finding are actually the most critical. Such explanations also take into account inactivity or silence; that is, the researcher considers what is not happening and what inaction is significant to the event or what could be taking place. When researchers contemplate rival explanations they also consider how cognizant participants are of nonactions or withheld events. For example, a researcher studying the phenomenon of hospitality in an early childhood center may consider the multiple meanings of an absence of invitational and welcoming commentary. An ability to offer an explanatory argument that is both theoretically and philosophically sound demonstrates that the explanation has tensile strength and is able to hold up under close scrutiny.

Although the findings of a case study should stimulate questions and, in fact, may invite controversy, rival explanations should preempt obvious and previously documented rival theories. A persuasive proposition presents sufficient evidence from the study and acknowledges alternative interpretations, giving clear reasons for their rejection. Rival explanations can reveal the inadequacy of the provisional explanation, or they can validate it. The absurdities, contradictions, and oppositions exposed at the stage of data reduction are often not resolved until a rival analysis occurs.

Rival explanations might provide better accounting for such factors as individuals who may be blocked by language, organizational, or bureaucratic barriers. It may also account for individuals whose perspectives are excluded or overlooked by the theoretical orientation of the researcher or research question. A researcher engaged in rival analysis seeks out incongruencies between provisionary explanations and the totality of the data. This may be accomplished by asking whether the explanation satisfies most, if not all, significant dimensions of the examples that have been selected as illustrative. When rival analysis has been appropriately conducted, the data display (i.e., the organized graphic representation of the information, e.g., charts, matrixes, graphs, etc.) leads readers to the logical chain of evidence and the explanatory framework proposed by the researcher.

Rival analysis is aligned with the principle of *parsimony*, which states that the explanation of any phenomenon should make as few assumptions as possible and should carefully eliminate those that make no difference in the explanatory hypothesis. As such, the simplicity or complexity of a good explanation demands that the explanation be free of elements that have nothing to do with the phenomenon.

Application

A clear articulation of the use of rival explanation is demonstrated by Martha Feldman in a complex and illuminating case study of supervisors in a student housing department of a large public university. She delineates a practice-based theory of organizational resourcing that is robust and credible for at least two reasons: (1) her conceptualization of resources as a dynamic and cyclical

phenomenon and (2) her research design, which cast a wide, systematic, and powerfully captive net over the data set. Her treatment of the inherent and inevitable messiness and richness of such a broad practice-based conceptualization of resources (in which resources are understood to enable actors to enact schemas) and the rigor of her multifaceted analysis resulted in a coherent and compelling case study.

Feldman's rigor in rival explanation analysis is revealed in the data analysis design, which was undergirded by a metatheoretical persepective that predisposed the researcher to ask particular kinds of questions of the data. The critical purpose in looking through a metatheoretical lens was to break the order of information as it had been presented to her, not to discount the original order but to develop alternatives.

The analysis plan also relied on vital descriptive theories that were compiled in one manuscript, leading to an appreciative and in-depth understanding of the relationship among work practices, structure, and change. This furthered Feldman's goal of multiple ways of knowing about the case and set appropriate expectations regarding its complexity.

In addition, Feldman allowed the writing of the case (the goal of which is to help readers understand the significance of various points of theoretical interest) to yield further observations. These insights became clear only as she disentangled one strand of findings from another. This stage of analytic writing involves pivotal decisions about what constitutes a strand and, subsequently, what context needs to surround it for the reader to make sense of the finding, theme, or set of ideas. She accurately positions this last stage of analyses, not as indicating a shortcoming of previous analytical efforts but as a function of the richness of the data and the nature of the process of making sense of qualitative data.

Throughout her article about this case study, Feldman speculates on other factors that may have influenced her findings and uses the powerful art of logical persuasion to document the unlikelihood of this rival explanation. For example, she conjectures that she may have been working with extraordinarily naïve managers and swiftly follows up with information that they were well educated and thoughtful and had experience in a variety of

organizations, decreasing the explanatory power of this rival explanation.

Critical Summary

Rival explanations ultimately are focused on fair consideration of other compelling ways to make sense of the data. Whether the provisionary explanation has integrity—that is, it is representative of the depth and breadth of the data set-is often revealed through rival analysis. Rival analysis considers whether one explanation is equally matched by another. If this is the case, the researcher suspects unreliability and permeability in the provisionary explanation and reconsiders the proposition. If the explanation conflicts with fewer observations than an alternative explanation, then this suggests that the explanation is resilient. Ultimately, researchers taking up rival analysis give serious consideration to whether a better explanation is available. This can be accomplished only by engagement in careful and systematic planning that seeks not to do the impossible or undesirable—control the study site—but to allow the data to say their full piece before engaging in converging propositions.

Ruthanne Tohin

See also High-Quality Analysis; Validity

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SAMPLING

Sampling in case study research involves decisions that the researchers make regarding sampling strategies, the number of case studies, and the definition of the unit of analysis. It is central to theory-building and -testing through case study research.

Conceptual Overview and Discussion

Sampling is a complex issue in case study research, because there are many variations of sampling strategies described in relevant literature. Researchers have generally agreed that the aims of the particular study should guide how cases are selected. Sampling in case study research is largely *purposeful*, that is, it includes the selection of information-rich cases for in-depth study. Information-rich cases are those from which the researcher can learn a great deal about issues of central importance to the purpose and investigated phenomena of the study. The case study approach offers flexibility in terms of the justification of sampling choice, the number of investigated cases, and sampling techniques.

A review of relevant literature puts forward different strategies for purposefully selecting information-rich case studies. For instance, Michael Quinn Patton identifies 18 different sampling strategies that may be employed in case study research—2 forms of random sampling (simple random samples and stratified and cluster samples) and

16 forms of purposeful sampling—and recommends that the selection of cases involves purposeful, not random, selection. The types of purposeful sampling identified are as follows: theoretical/theory-based/operational construct, convenience, extreme/deviant/outlier, intensity, maximum variation, homogeneous, typical, critical, snowball, criterion, confirming and disconfirming, stratified purposeful, opportunistic, purposeful random, politically important, and combination/mixed purpose. Sampling involves the initial selection of the case or cases and within-case sampling in terms of the informants, observations, documents, and so on.

The distinction among purposeful, selective, and theoretical sampling often lacks clarity in the literature. As a result, these terms are viewed synonymously and used interchangeably even though they are defined differently. *Purposeful sampling* is an umbrella concept that embraces the strategies of theoretical and selective sampling. Theoretical sampling has been defined in grounded theory terms as sampling on the basis of emerging concepts. Such an approach to case study sampling involves systematically examining and refining variations in emergent and grounded concepts. Thus, sampling can either be prespecified up front or evolve progressively once the field work begins. Theoretical sampling derived from grounded theory can be distinguished from selective sampling, which refers to a decision made before beginning the study to sample subjects according to a preconceived, initial set of criteria. Initial samples may be chosen at the early phases of the investigation (selective sampling), and then others can be selected according to categories emerging from the data (theoretical sampling).

The literature distinguishes between and *purpose-ful* and *representative* random sampling and suggests that in some case study research—for example, in evaluation studies—the credibility of systematic and randomly selected case examples is considerably greater than personal, ad hoc selection of cases. However, purposeful random sampling is used to enhance credibility; it is not a representative random sample for generalization to populations. Indeed, it has been argued that that random sampling of cases is neither necessary nor preferable. In qualitative sampling the focus is on selecting information-rich cases for in-depth study, to enhance the richness, validity, and depth of the information.

Adequacy of sample size in case study research is relative and dependent on the type of the research question posed by the case researcher and the epistemological assumptions of the study. For instance, if the case study researcher is concerned with the development of idiographic explanations and deep contextualization of case study evidence, a single case study approach may be adopted. It has been argued that one case is enough to generalize not to a population, but to permit analytical generalization to theoretical propositions, based on real-world discovery. In line with interpretivists and critical realists, a single case can give alternative accounts of causation and can clarify obscure theoretical relationships in a particular setting and theory construction. Several reasons for using a single case have been identified:

- A *critical case* used in testing well-formulated theory, to determine whether a theory's propositions are correct or whether some alternative set of explanations might be more relevant
- 2. An *extreme* or *unique* case, in which the phenomenon is so rare that it is worth documenting and analyzing
- 3. A *representative or typical case*, where the objective is to capture commonplace situations
- 4. A *revelatory case*, where there is the opportunity to observe and analyze a phenomenon previously inaccessible to investigation
- 5. A *longitudinal* study, in which the case is studied at different points in time

Alternatively, when the case study researcher is mainly concentrating on the use of contrasting/ differing observations for advancement of propositions and replication of findings in various settings, a multiple-case approach appears to be appropriate. A multiple-case design allows the researcher to extend the analysis and potential for generalizability and search for cross-case patterns and themes. Literal replication is when similar results are found among cases for predictable reasons, and theoretical replication is when contrary results are found for predictable reasons. Multiple cases also enable comparisons that clarify whether an emergent finding is idiosyncratic to a single case or is consistently replicated by several studies. A theoretical framework is usually needed a priori to make case comparisons possible. Cases should be added until theoretical saturation and information redundancy are reached, whereby the addition of new cases brings no new insights to the study. There are no precise rules as to the number of cases that should be selected in multiple case study research, albeit recommendations made in the relevant literature range from 4 to 15. The number of cases selected depends on how rich and complex the within-case sampling is. There is a breath–depth trade-off: With too many case studies, the data become thinner, and depth may be lost. Multiple case studies can require extensive resources and time; researching a greater number of cases with the same resources may mean more breadth but a loss of depth.

The following sampling strategies that help multiple-case research have been identified in the literature. *Typical* cases are helpful in the early stages of a project to establish what is typical or average. *Negative* or *disconfirming* cases give the maximum variation and limits to conclusions. *Exceptional instances* allow the researcher to qualify findings and specify variations or contingencies in the main patterns observed. Although single cases typically exploit opportunities to explore a phenomenon under rare or extreme cases, a theoretical sampling approach in multiple case studies can be used whereby *polar types* are selected and researchers sample extreme cases in order to more easily observe contrasting patterns of data.

Another aspect of case study sampling is associated with the definition of the unit of analysis and, in turn, case study boundaries. The unit of analysis is the major entity being analyzed in the study. It is

the "what" or "who" being studied. This is not to be confused with the unit of observation or the empirical unit, that is, the unit or units on which the researcher collects data. A case study may involve the examination of a single unit of analysis (holistic case study) or more than one unit of analysis (embedded case study). When a single case study examines only the global nature of an organization, a holistic design is used, but when subunits are analyzed in a single setting an embedded single case study approach is used. To illustrate, even though a case study might be addressed toward a single organization, data collection and analysis, as well as presentation of findings, occurs at multiple levels, including the level of the individual and of subgroups of individuals or/and strategic business units. The use of embedded units of analysis suggests that an equal emphasis should be placed on both the subunits of the study and the case as a whole. Multiple case studies may have one or multiple units of analysis. The unit of analysis and the boundaries of the case may be specified a priori at early phases of the case study project, or they may emerge progressively during the course of the case study project.

Application

Two examples that incorporate different case study designs and sampling choices are presented in this section: (1) Emmanuella Plakoyiannaki, Nikolaos Tzokas, Pavlos Dimitratos, and Michael Saren's (2008) study, which explored the interface of employee orientation and customer relationship management (CRM) and (2) Paul Ellis and Anthony Pecotich's (2001) research, which examined social factors influencing export initiation.

Plakoyiannaki et al.'s research pertained to a single, holistic, real-time case study. In line with Dyer and Wilkins's (1991) findings, the rationale for selecting the investigated firm was to enhance richness and depth of information obtained while facilitating transferability of the case study findings to other contexts. Theory-based sampling was applied in an attempt to identify manifestations of the interface of CRM and employee-oriented culture. The unit of analysis largely emerged from the case study findings and included the relationships between CRM and different elements of an employee-oriented culture. Data collection and analysis processes were facilitated by a preliminary

conceptual framework. The findings attempted to incorporate the viewpoints of organizational members of the investigated firm (an emic perspective) with regard to the notions of CRM and employee orientation and, through contextually rich stories, contribute to theory-building.

Ellis and Pecotich's study constituted an expost multi-site case research with embedded unit of analysis. Following the arguments of Eisenhardt, the authors demonstrated the replication power of case study research by collecting and analyzing data on "the proposed relationship between antecedent social ties and the perception of export opportunities." To address the purpose of the study, Ellis and Pecotich purposefully selected cases on the basis of literal replication; notably, "generalizations from one case to the next were made on the basis of the match with underlying theory." The authors defined the case as Small Medium Enterprises and collected data within and across cases at multiple levels (individual and firm level). Although there were eight exporting firms in the sample, 31 export initiations were observed, each of which constituted an embedded unit of analysis within the investigated firms. In accordance with relevant studies, the authors equated the Small Medium Enterprises firm with the case that incorporated subunits for observation and discussion, notably, each export initiation defined as a product market entry. The multiple levels of analysis were manifested in the discussion of the findings that unfolded at the firm and export initiation levels.

Critical Summary

In case study research the process of sampling encapsulates a variety issues that the researcher needs to take into consideration. These include deciding upon (a) sampling strategies, (b) the number of case studies, and (c) a definition of the unit of analysis. In case study research sample selection has a profound effect on the quality of the case study evidence. Thus, qualitative sampling for case study research is about appropriateness, purpose, and access to good information rather than representative and random/probability sampling, as with quantitative studies.

Margaret Fletcher and Emmanuella Plakoyiannaki See also Generalizability; Grounded Theory; Multiple-Case Designs; Replication; Single-Case Designs; Theory-Building With Cases; Theory-Testing With Cases

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SCIENTIFIC METHOD

The scientific method is a set of assumptions and procedures for knowledge acquisition consistent with scientific norms. Such a definition emphasizes three elements of the scientific method: (1) assumptions, (2) procedures, and (3) consistency. Awareness of these three elements is a prerequisite for research in general and case study research in particular. The following section thus discusses scientific assumptions regarding ontology, epistemology, and methodology.

Conceptual Overview and Discussion

Knowledge acquisition implies the generation, development, and testing of theory. Generation and

development of theory may occur without data. In particular, intuitive or theoretical syntheses without the consideration of data may generate and develop constructs, models, and testable propositions. Theory-testing, however, requires data in order to confirm or disconfirm testable propositions.

Knowledge, on the other hand, has various degrees of depth and breadth. Knowledge depth increases with identification, description, explanation, prediction, and control. Such sequential degrees of knowledge depth are implicit, respectively, in "what," "how," "why," "when," and "how much" questions. Knowledge depth refers to content and process, whereas knowledge breadth concerns context, which is implicit in "who" and "where" questions. The corollary of such a view of knowledge depth and breadth is that qualitative identification necessarily precedes quantitative control.

Such considerations are closely related to the scientific method because the latter constitutes a metalogic for bridging theory and data. In other words, the scientific method is a set of assumptions and procedures for knowledge acquisition consistent with scientific norms. Such a definition emphasizes the three elements of the scientific method listed at the beginning of this entry, that is, (1) assumptions, (2) procedures, and (3) consistency.

Consistency concerns the alignment of assumptions and procedures in light of scientific norms. The latter, however, are not necessarily universal, because of logical and sociological heterogeneity. Philosophy of science, for instance, questions the compatibility between different types of logic (e.g., deduction, induction, abduction, and retroduction), especially in terms of causality as necessarily observable, regular, and predictable. Sociology of science, on the other hand, questions the homogeneity of scientific norms across disciplinary and intradisciplinary research communities.

The definition of *scientific method* can thus be specified as a set of assumptions and procedures for knowledge acquisition that are consistent with (logically and sociologically situated) scientific norms. In addition to such logical and sociological awareness, research in general, and case study research in particular, requires awareness of scientific method assumptions and procedures. *Assumptions* concern the nature of reality (ontology), knowledge (epistemology), and research

(methodology). *Procedures*, on the other hand, concern data collection and analysis as well as quality criteria.

Ontological assumptions concern the nature of reality. At one extreme, phenomena are regarded as objective in isolation and in relation to each other; at the other extreme, phenomena are considered subjective in isolation and in relation to each other. The former view assumes a single apprehensible reality, whereas the latter view assumes the coexistence of multiple nonapprehensible realities. This may be called the *ontological divide* of scientific norms.

Epistemological assumptions, on the other hand, concern the nature of knowledge. At one extreme, knowledge is assumed to be value free and thus independent of the researcher; at the other extreme, knowledge is assumed to the value laden and thus dependent on the researcher. This may be called the *epistemological divide* of scientific norms.

Finally, *methodological assumptions* concern the nature of research. At one extreme, research is regarded as manipulative in the sense that it benefits from distance to reality; at the other extreme, research is assumed to be interactive in the sense that it benefits from proximity to reality. This may be called the *methodological divide* of scientific norms.

When aligned, ontological, epistemological, and methodological assumptions constitute a philosophical stance, that is, a fixed profile of positions in terms of ontology and epistemology. Such a profile may be labeled, among others, as a paradigm, position, orientation, approach, and perspective. Because assumptions are unavoidable in human reasoning but are not necessarily conscious, researchers may inadvertently lack awareness of their own philosophical stance. The ontological, epistemological, and methodological divide of scientific norms has thus been elaborated into four main philosophical stances: (1) positivism, (2) realism, (3) critical theory, and (4) constructivism.

When facts are researched in isolation from their context, the implicit philosophical stance is *positivism*. Such isolation of facts from their context is due to the emphasis on measurement through many statistical sampling units and few analytical variables (in form of testable propositions). By contrast, when facts are researched in

relation to their context, the implicit philosophical stance is *realism*. Instead of measurement, the emphasis is on synthesis through many analytical variables and few statistical sampling units.

On the other hand, when values are researched in relation to their context, the implicit philosophical stance is *critical theory*. Instead of measurement or synthesis, the emphasis is on observation of collective rather than individual values. By contrast, when values are researched in isolation from their context the implicit philosophical stance is *constructivism*. Instead of measurement, synthesis, or observation, the emphasis is on interaction in order to identify individual rather than collective values.

The assumptions implicit in positivism, realism, critical theory, and constructivism require, therefore, measurement, synthesis, observation, and interaction skills, respectively. Such skills are aligned with the continuum of methodological assumptions from manipulative to interactive research. Moreover, such skills and assumptions may be aligned with procedures for data collection and analysis as well as quality criteria. The overall set of such procedures constitutes a *research strategy*.

Application

Research strategies are dilemmatic by nature; in other words, they are unable to maximize simultaneously analytical and statistical generalization. Statistical generalization requires many sampling units and few analytical variables. Analytical generalization, by contrast, requires many analytical variables and few statistical sampling units. On the other hand, the very notion of generalization or external validity is debatable as a criterion of scientific quality. In fact, objectivist philosophical stances such as positivism and realism imply validity and reliability criteria, namely through triangulation. By contrast, subjectivist philosophical stances such as critical theory and constructivism assume that values are not prone to triangulation as facts, replacing triangulation with crystallization as a means for trustworthiness and authenticity criteria instead of objectivist validity and reliability criteria.

Quantitative research strategies are exclusively aligned with the positivist philosophical stance because they seek the measurement of facts in isolation of their context. Case study research, by contrast, is a rather versatile qualitative research technique because it may be aligned with any philosophical stance.

Within the positivism philosophical stance, case study research allows the exploration of facts ahead of their measurement. Given the emphasis of positivism on statistical generalization, case study research is regarded as having low external validity. Within the realist philosophical stance, however, case study research is regarded as having high external validity, because the emphasis is on synthesis rather than measurement and on analytical rather than statistical generalization.

On the other hand, within the constructivist philosophical stance case study research is suitable for collecting and analyzing data on individual values. Although such individual values are regarded in isolation from their context, case study research is an appropriate strategy, because the cases may be individuals. The quality criteria for judging the validity and reliability of findings may, however, be replaced by subjectivist criteria such as trustworthiness and authenticity.

Finally, within the critical theory philosophical stance case study research is appropriate for collection and analysis of data on social values. Such values are regarded in relation to their context in terms of time and space, implying longitudinal and cross-sectional cases at a level of analysis higher than the individual level. The quality criteria for judging the validity and reliability of findings may equally be subjectivist criteria, such as trustworthiness and authenticity.

Critical Summary

The scientific method is a set of assumptions and procedures for knowledge acquisition that are consistent with scientific norms. Ontological, epistemological, and methodological assumptions may be clustered in four main philosophical stances: (1) positivism, (2) realism, (3) critical theory, and (4) constructivism. Case study research is a versatile research strategy, because it can be aligned with these four stances. Researchers need to be aware, however, that these philosophical assumptions differ in terms of their focus on facts or values, in isolation or in

relation to their context. As a result, case study procedures for data collection and analysis as well as quality criteria equally differ. In particular, statistical generalization of factual measurement may be complemented with analytical generalization of factual synthesis, factual triangulation may be replaced with value crystallization, and factual validity and reliability criteria may be replaced with value trustworthiness and authenticity criteria.

Ricardo Alexandre Morais

See also Abduction; Analytic Generalization; Epistemology; Inductivism; Ontology

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SCIENTIFIC REALISM

Scientific realism is the view that science enables us to know and understand the way the world really is. It is closely related to (logical) positivism.

"The way the world really is" means that, if humans did not exist, or were not to observe it, the universe would be and behave in a particular way that can be "objectively" described. If scientific realism is accepted as the foundation of social sciences then case study research, as a form of scientific research, will produce results that accurately describe states of affairs in the world. However, there are significant obstacles to accepting scientific realism as a correct description of scientific endeavor, and in view of these it seems more reasonable to use scientific realism as a framework for doing and understanding case studies than to accept it as providing truth.

Conceptual Overview and Discussion

Realism is generally the view that one can make true statements about states of affairs in the world. Scientific realism is a version of realism as it pertains to the knowledge-gathering activity called science. Scientific realism has two components: (1) the metaphysical/ontological assumption that there is a way the world is, independent of humans, and (2) the epistemological assumption that humans can somehow know and understand (and thus describe) that way the world is. Together, these assumptions form a key claim of science that underpins the whole certainty of scientific knowledge: Science tells the truth about the universe. To cast doubt on scientific realism is to cast doubt on the supposed validity of the scientific enterprise. To argue against the first component leads toward the extreme view that the whole universe exists only in a person's consciousness, and most people accept that there is some sort of universe that would exist even if humans were extinct. Most opposition to scientific realism therefore focuses on the second component: knowing and understanding and truth.

From the realist view that science objectively explains and describes the world, it follows that a scientific theory is a (perhaps partial) description of the way the world is and that the statements made by the theory can be adjudged true or false by reference to real-world states of affairs. Because there is only one way the world is, there can be only one true description of it. This highlights the epistemological value of scientific realism: It guarantees a certainty of knowledge.

If you accept scientific realism, and that it describes how social science is done, then when you read a case study you will take it as the presentation of a set of factual descriptions that warrant the conclusions drawn and accept those conclusions as true. However, this is not the only way to understand a case study.

Alternatives to Scientific Realism

To take a realist perspective on the preceding paragraphs is to treat them as objective: They describe the way things are. However, consider an alternative view: that realism is but one of a number of possible theories about science. This alternative is a view that is not available to a realist because realism is a position that admits no alternative: Things either are a particular way, or they are not. Should a realist description of a state of affairs turn out to be inaccurate or false, the only realist option is to dismiss it as wrong. However, a nonrealist can acknowledge that there may be different descriptions of the world that might not in themselves be complete or in all respects accurate. The nonrealist can accept a theory that in a realist sense is wrong but still make use of it within particular contexts or by acknowledging certain constraints. This is an instrumentalist position, which holds that as long as scientific theories are useful it matters little how accurately they represent the world. However, there is also a view, neither realist nor nonrealist, which is that the job of science is to model reality rather than to describe it as it is. It is an a-realist position, because concern is with the robustness of the model and the efficacy of its use. There is no concern to make true statements about the way the world is, and so realism is not an issue. This differs from an instrumentalist position because it is concerned with creating an understanding of the world rather than knowledge and the metaphysical entailment of realism.

It may be that the realist and a-realist views represent two of what Thomas Kuhn identified as *paradigms* for doing scientific research and so are incommensurate. One must either view case study as an attempt to describe the way things really are, or as an attempt to explicate models one creates. The work of Robert K. Yin illustrates a realist view of case study, whereas that of Robert E. Stake shows an a-realist perspective.

Objections to Realism

There are a number of objections to realism that, taken together, make it a difficult view to hold consistently. Four of them are as follows.

- 1. Universal laws. The view that there is a world independent of human existence is generally accepted, but there is less than universal agreement about the way it is. The realist view is that the universe is a regular, law-abiding sort of place that has unfolded and will unfold according to a set of (natural) laws, which it is the task of science to identify. A law is both descriptive and explanatory, and the regularity of a law permits prediction. The assertion that the universe is law governed is philosophically problematic, because it evades rigorous justification. If it is not taken to be axiomatic (and thus an unsupported starting point for the development of science), any attempt at justification seems to result in an inescapably vicious circularity. This difficulty of establishing a nonaxiomatic basis for the lawful behavior of the universe is thus a challenge to the metaphysics/ ontology of scientific realism.
- 2. Causality. Realism faces other philosophical challenges. For example, as David Hume observed, it is notoriously difficult to express what is a cause and what is its relationship to the effect it supposedly generates. To a realist, a particular cause will always have the same effect, but in case study this may well not be.
- 3. Language. The third challenge to realism is linguistic (or semantic) and opposes the idea that science can make true claims about the world. If realism describes the world as it is—objectively—then a statement such as "There is a critical period for language development to occur in human infants" is objective. However, it is difficult to explain precisely how this statement refers to the real world rather than to human concepts.
- 4. Experience. There is an empiricist view that all knowledge of the world depends ultimately on experience. It follows from this that we cannot know that which is not possible for a human to experience. Building on this objection to realism is the phenomenological view that, because our experience is mediated by our perceptual apparatus,

we cannot move outside our experience to the real world, and so objective knowledge of the world is not possible.

Application

The distinction between realist and a-realist interpretation is illustrated through Lloyd Warner and Paul Lunt's study of "Yankee City," a small New England town typical of many such. One outcome of this study was the identification of a class structure. The urban society was divided into six distinct hierarchical classes. An individual's classification depended on many factors, including where he or she lived (a particularly significant indicator), the job he or she held, the company he or she kept, his or her ancestry and ethnicity, and the amount of money he or she had.

The initial working hypothesis of the study was that social status is simply indicated by economic success (or lack thereof). This hypothesis was refuted (falsified) as data were gathered, and the researchers developed "a class hypothesis that . . . withstood the later test of a vast collection of data and of subsequent rigourous analysis."

The realist view is that, because the later hypothesis withstood challenge, it accurately describes the world. This is how society in small New England towns (and, by implication, U.S. society in general) is ordered. You are a member of a particular class, and when your postal code, club memberships, family income, and name are known, then that class can be identified. The social classes were "discovered" by the research. That is reality.

The a-realist takes a slightly different view. First is the metaphysical objection: We talk of class structures in everyday speech as if they are real, although an individual's class cannot be directly observed but may only be inferred through the direct observation of other attributes of the individual. The a-realist holds that this inference cannot be justified.

The model "Social Status = Income" is shown to be inappropriate because it is too simple and is replaced by a particular model derived from the set of models determined by "Social Status is a function of Location, Association, Work, Family Income." Such a model is useful to, for example, marketers of goods that reflect status, such as cars or clothes, because it enables them to target sections of the population for effective

marketing. However, it may not be useful to those whose interests—for example, sports or religion—cross the model's social boundaries. Thus, the a-realist emphasizes the appropriateness of particular models for some activities but does not insist on any model being universally applicable.

The a-realist will also challenge the realist to show how there is any sort of causal relationship among the factors that influence social status, claiming perhaps that any individual is free to influence his or her own social mobility at will. If the relationship is correlative rather than causative, then any segmentation of a population into classes is arbitrary and artificial and therefore not real and not discoverable.

Critical Summary

There is a strong case against scientific realism, but science and social science are reported in a realist style. A case study is presented as an accurate/true description of the case regardless of the view of the author. This is not simply a rhetoric of certainty, because it is not an assumed literary style. From the a-realist standpoint, realism is simply a model for conducting and presenting research and, like any model, it may be appropriate to use in some circumstances but not in others. In writing and speaking, realism seems to be a reasonable model to adopt because we interact with the world as if it were the way it appears to be.

If the arguments against scientific realism are accepted, then the a-realist position—that the task of science is to create models—becomes more attractive and viable than nonrealism because it can assume realism as a model and adopt it as a framework for conducting scientific research without having to make the metaphysical/ontological and epistemological commitments realism demands.

Alan Belk

See also Causal Case Study: Explanatory Theories; Deductive–Nomological Model of Explanation; Explanation Building; Natural Science Model; Scientific Method; Underdetermination

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SECONDARY DATA AS PRIMARY

The phrase *secondary data as primary* refers to the use of pre-existing quantitative or qualitative data sets and their associated analysis as a collective focus of study. Case researchers typically undertake some form of meta-analysis of this secondary data and the related analysis using a historical or comparative approach.

Conceptual Overview and Discussion

The increased popularity and application of discourse and narrative analysis, advances in the archiving and computing of qualitative and quantitative data, and ethical concerns about the influence of industry funding have facilitated the re-examination and reassessment of secondary data as primary data. Unlike secondary data analysis, which involves the re-use of existing data to extend a pre-existing study or undertake new analysis of the data, the use of secondary data as primary data utilizes secondary data and its associated analysis as a focus of a new social research project that generates methodological and/or substantive insights on the case subject. It is the selection of the data and analysis collectively as the focus of a case study that transforms what would otherwise be secondary data into primary data. Secondary data as primary should also be distinguished from synthesis research, or literature reviews, in which the primary data analysis performed by the initial researchers is reported without any additional substantive analysis of the data.

Secondary data as primary is ideal for highlighting trends or patterns, discursive or methodological framing, or gaps in analysis of research undertaken collectively on a particular topic. However, as is often the situation in much case research and many forms of comparative secondary analysis (e.g., cross-national analysis), the framing of the topic (i.e., how the case is theoretically and practically defined) comes to the fore in assessing the validity of such studies and the conclusions drawn about trends in the topic of study. Methods of inclusion and exclusion of studies in the case not only determine the characteristics of the final research study but also can substantially influence the resulting analysis. Hence, being able to speak to the selection and comprehensiveness of the data (which databases and search terms were used, span of time covered by the secondary data collected, choice of extensive methods versus intensive methods, etc.) is critical when undertaking case analysis that utilizes secondary data as primary data.

Application

Insights from science and technology studies regarding the social context of science, and increased funding of research by industry, in particular in the biomedical sciences, has encouraged a host of extensive case studies (variable-oriented research with a large number of cases as opposed to intensive studies that examine in detail a small number of cases) that have examined the impact of funding sources on the outcome, validity, and reliability of empirical medical studies. Studies conducted by Joel Lexchin and associates in 2003 on pharmaceutical funding, and by Anke Huss and colleagues in 2007 on cell phone company sponsorship of research, have raised concerns about clinical trial agreements and selective publication biases that reveal only positive results of drug or technological use. The intent of many of these meta-analyses that utilize secondary data as primary data has been to demonstrate the lack of negative or null results in the published data and consequently the collective bias that results in the medical literature about these topics, which has in turn affected research funding decisions, treatment practices, and healthcare policy.

A 2006 study conducted by Mickey Lauria and Jacob Wagner demonstrates a comparative middle course between extensive and intensive research methods to gather in-depth knowledge of each case as well as examine the cases as a whole. They analyzed the empirical data from 114 studies on planning practice to see whether and how the practice was used to inform planning theory. Their study demonstrated a growing concern over the fit between planning theory and the realities of planning practice over the past two decades, but they could not conclusively determine that these studies were resolving contentious theoretical issues within the planning field.

Other case studies that have used secondary data as primary undertook more descriptive and exclusively intensive analysis to examine a smaller number of studies as a means of identifying initial patterns or gaps. For example, Paul Camacho and Paul Atwood, in their 2007 article "A Review of the Literature on Veterans Published in Armed Forces & Society, 1974–2006," undertook a case analysis of the coverage of veterans in one journal. Through their descriptive analysis of 24 articles they provided an overview of the experience of veterans and revealed a significant lack of attention given to the experiences of veterans from outside of Western first-world nations. Undertaking a more explicit discursive analysis, Peregrine Schwartz-Shea and Dvora Yanow provided a close reading of 14 political science textbooks to explore how each defines political science inquiry in theory and practice. They specifically examined what, and how, methods were discussed and whether they were accompanied by a discussion of context and methodology (i.e., epistemological/ontological questions). Their analysis revealed a largely consistent bias within political science texts in favor of positivist scientific methods of research.

Critical Summary

Although, as the preceding examples illustrate, it is not one of the more common forms of case study analysis, case research that utilizes secondary data as primary data involves theoretically defined cases that examine both quantitative and qualitative data, include extensive and/or intensive research methods, and use a diversity of forms of data analysis. Such research can highlight emerging

trends, but it can also disrupt taken-for-granted assumptions about a particular topic by making explicit the biases in the field of concern. Hence, case researchers undertaking this form of analysis have at times created heated debate and even public controversy related to their case topics. Nonetheless, as the case studies conducted by the American Medical Association in 2004 on publication bias within clinical research demonstrate, such case studies can result in far-reaching changes to research, policy, and practice.

Lorelei Hanson

See also Comparative Case Study

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Self-Confrontation Method

Self-confrontation is a method consisting of confronting a person with his or her own image,

behavior, or experience by means of an artifact; that is, proposing a representation of reality to the person. Most researchers use video as a medium to achieve this. The confrontation takes place during an interview involving transformation of the subject and his or her personality and behavior, and/ or acquiring an understanding of the determining factors of his or her activity. Self-confrontation does not correspond to a single method. It is used in multiple disciplines with different objectives: psychotherapy, psychology, education studies, macro-ergonomics, sport sciences, management, and so on. Two main approaches can be distinguished: (1) one in which self-confrontation is aimed at revealing an affective profile, constructing an identity, and/or transforming certain behavior patterns, and (2) one primarily aimed at activity analysis. The paradigmatic and theoretical foundations justifying its use are varied; thus, the diverse scope of this term from a methodological point of view is increasing.

Because videotape playback is the most widely used kind of self-confrontation, this entry first describes the use of this type of device in relation to the issue of identity construction. Next, the entry defines, depending on different paradigms, the ins and outs of self-confrontation by video within the framework of activity analysis. This leads to a consideration of the different ways in which video is used in self-confrontation, and the entry concludes by showing self-confrontation methods based on other media.

Conceptual Overview and Discussion Self-Confrontation and Identity

The 1960s and 1970s witnessed a profusion of self-confrontation scenarios using video playback to confront different populations with themselves, with the aim of *self-construal*, confronting people with the reality of what they are and what they do. The video therefore represents a relatively powerful mirror in that it appears to state the existence of a reality in an objective and undeniable manner. This feedback takes on the value of truth; therefore, it provides a formidable driving force for change. For instance, self-confrontation has been used to treat certain pathologies, such as alcoholism, schizophrenia, and depression, or to improve self-awareness, self-esteem, self-image, openness, interpersonal

relationships, work attitudes, affective sensitivity, and so forth. Not always theorized, these self-confrontations by video methods have been the subject of numerous studies and controversies concerning their effective impacts, intended or otherwise. The central question in these discussions is: Does video make a significant contribution to changing behavior in relation to oneself and/or in relation to other people? Although there is not one answer to this question, it is no longer of the most important concern for researchers. With the democratization of the video camera (i.e., its increasingly broad use by the public), there is no longer any fear of using video playback, but there also is less originality.

Self-Confrontation and Activity Analysis

The second, more recent approach consists of developing self-confrontation as a means of activity analysis. The primary aim is the construction of materials giving an understanding of the determining factors of an activity. Within this framework, self-confrontation is an attempt to improve on the collection of verbalized data. During an interview conducted subsequently in relation to the action, this means confronting a person, by means of a video, with his or her own behavior to help him or her express the factors underlying that behavior. In this approach we distinguish two paradigmatic foundations that lead to envisaging self-confrontation either as (1) stimulated recall of mental states determining action or (2) as a means for explication of embodied and tacit dimensions of practices.

Stimulated Recall

Within the paradigm of information-processing systems, which utilizes an analogy between a person and a computer, stimulated-recall studies seek to document the perception, decision, and programming operations that determine the action. This involves collecting verbal statements concerning absorption of information, representation, cognition, and decision-making processes. Self-confrontation by video is set up in response to the limits encountered by concomitant or subsequent verbalization. The video recording, played back during the interview, is positioned as a bastion against forgetfulness and an instrument of discourse validation. The premise is as follows: Through the use of the video, which gets the subject to relive the

situation, he or she re-experiences the mental states that determined his behavior and can therefore describe those mental states. In the view of Mario von Cranach and Urs Kalbermatten, the self-confrontation subject is therefore able to reveal his or her cognitive conscious experience during the act. Within the framework of theories on information-processing systems self-confrontation gives the researcher access to the mental processes of a subject during a given task. It can be used, for example, to study a student's cognitive process or a firefighter's decision-making process.

Self-Confrontation as a Possibility for Action Explication

Activity analysis, from a standpoint similar to phenomenology and enactment theory, is developed in another light. Considering that the subject constructs his situation in, by, and during his actions, understanding the activity entails an awareness of what makes sense for him at a given moment. Abandoning the body-spirit dichotomy, this approach is interested in embodied and tacit knowledge that the subject is not spontaneously able to express. This supposes an effort on the part of the subject in terms of reflecting and explicating his activity that self-confrontation is able to encourage and assist. To accomplish this, first the video playback facilitates the return to a situation experienced in its particular sequence of events. Second, it orients the position of the subject and the researcher in relation to the action during the self-confrontation. The verbalizations constructed cannot cover the embodied and tacit dimensions of practices; however, they allow the researcher to come close to the subjective foundations of an action in a particular context via a description of the running of action from the subject's point of view, as proposed by Jacques Thoreau. This kind of self-confrontation aims at revealing what makes sense, for example, to a rugby referee throughout a match, or to highlight the course of action of a train driver.

Different Uses of Video in Self-Confrontation

The works based on self-confrontation by video have a variety of theoretical and paradigmatic foundations and objectives, and the ways in which video is brought into play are just as diverse. Going beyond divergences concerning both the purpose of the self-confrontation and the status of video in the process, the video recording may take different forms. Depending on the case, it presents to the subject her behavior under different angles; an image close to her field of vision; a focus on a part of the body, at actual speed or in slow motion. This recording, which is variable in duration, may or not be subjected to a sequencing and selection process. The confrontation between the subject and the recording may be organized as a person-toperson exchange with the interviewer, an interaction between peers, or in a working group. The delay between the action and the self-confrontation is also the subject of much discussion: Should the self-confrontation take place just after the action or after a longer time interval? The positions adopted are many, as are the arguments in their favor. The types of questions put to the subjects also vary widely: to look at themselves on videotapes, to recall feelings at significant points during videotape playback, to explain what they were thinking about during the action, to describe what made sense for them throughout their activity, and so on. The same applies to the atmosphere established during the self-confrontation process. Setting up a self-confrontation therefore entails adopting a position on these different points, depending on the theoretical standpoint of the research and its objective.

Self-Confrontation Method Without Video Support

Although video is frequently used to confront people with what they are and what they do, audio playback, pictures, or any other representation of reality can be used as a support. For example, Hubert Hermans's self-confrontation method devised to investigate personal meanings, their affective properties, and their organization into a composite whole—contains two main parts: (1) the construction of the valuations in an interview and (2) the connection of each valuation with a standard set of affect-denoting terms. First, the person is invited to construct short narratives that reflect important experiences about his or her past, present, and future. Each valuation is written in the form of a statement. Second, a standard list of affect terms is offered to the subject, on the basis of which he is invited to recount his own experiences. Concentrating on a single valuation, subjects are asked to indicate on a 0-5 scale the extent to which

they experience each affect in connection with the particular valuation. This kind of self-confrontation allows the study of specific affective organization of the self in a value crisis, for example. The artifact constructed by the researcher to conduct self-confrontation is therefore of another type altogether.

Critical Summary

Whatever the artifact, the aim of self-confrontation, or its theoretical justifications, the self-confrontation method consists of confronting a person with himself or herself. Considering the technological and theoretical innovations, the importance of activity analysis, and many interests to confront a person with himself or herself, self-confrontation is a promising method that, in the future, will no doubt be even further developed.

Géraldine Rix and Pascal Lièvre

See also Analysis of Visual Data; Codifying Social Practices; Experience; Interviews; Reflexivity; Sensemaking; Subjectivism

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Self-Presentation

In The Presentation of Self in Everyday Life, Erving Goffman (1959) outlined his concept of strategic self-presentation as follows: that "when an individual appears before others, he knowingly and unwittingly projects a definition of the situation, of which a conception of himself is an important part" (p. 235). This can be conscious or unconscious, and it can also be subject to deception, as when people may present misleading impressions to suit themselves. This entry considers the development of this theory, the reaction of critics to the concept, and its relevance to case study research.

Conceptual Overview and Discussion

Goffman's theory of strategic self-presentation has had a wide-ranging effect on the social sciences, influencing the analysis of individual behavior in many fields. Goffman's research into self-presentation comes out of a tradition dating back to the sociology of the 1920s and the study of interaction and the role of the self. He acknowledges a debt to games theory in his focus on strategy; other influences include G. H. Mead's social psychology, Patrick Bateson's human ethology and Émile Durkheim's theories about self and social organization.

Goffman's first, and best-known, work on the subject is *The Presentation of Self in Everyday Life*, first published in 1956 as Monograph #2 of the University of Edinburgh Social Sciences Research Centre and republished in 1959 as a commercial book, whereupon it won the MacIver Prize. However, the idea underpins much of Goffman's later work in one form or another, and it has had a wide influence on other researchers engaged in case study work.

Outline of Theory

Goffman argues that in social interactions, individuals present themselves in such a way as to best further their own agendas within this interaction and interpret the self-presentation of others according to the same criteria.

Throughout his work on the subject, Goffman uses a theatrical metaphor: the *dramaturgical approach*. He suggests that a series of possible activities and occurrences by actors with associated prescribed roles make up a stage where dramatic action takes place. Individuals presenting themselves

are thus playing roles, and there exist "backstage" areas in which the actor can step out of their role and be at ease. Self-presentation is likened to a performance, whereby individuals present themselves employing a repertoire of symbols.

Goffman also considers how self-presentation can also be subject to conflict. He considers that actors must keep control over what the audience sees, that this control may be broken through activities such as practical jokes, and that there are social consequences for the person presenting himself or herself if this should occur. In turn, these practices whereby the individual seeks to protect themselves, act to give the individual and their impressions a sense of security. Interaction thus appears as a game of maintaining impressions, and in turn probing the impressions presented by others, a practice Goffman terms *impression management*.

Finally, Goffman's later work on stigma deals with spoiled identity and the ways in which this can be managed, or not, to control the reactions of others. In Goffman's words, stigmatization relates to people attributing a negative identity to others through social interaction. Stigmatized individuals may try to remedy this through self-presentation (e.g., a criminal protesting his innocence), but the success of this depends on how convincing they are and how willing their audience is to believe them.

Application

Goffman's work has been found to be useful in several disciplines that make extensive use of case studies; in addition to sociology, the study of impression management has relevance to anthropology (in particular that devoted to the study of identity, self, and personhood), linguistics, psychology, philosophy, and management studies (principally regarding organizational behavior), because of the utility of the concept of strategic self-presentation in analyzing social situations and the motivations of participants.

A self-presentation—based analytical perspective can, for instance, make sense of the behavior of individuals in particular social situations. If one considers that the individuals involved are, at least some of the time, attempting to present themselves according to particular strategies, then this casts light on the relationships among the parties involved, the likely outcomes of their activities, and the actions that take place during the case study in question. It can also make sense of seemingly contradictory behavior for, as Randall Collins noted in 1988, "Goffman typically stresses that the human self is multiple and dependent upon the kinds and levels of situational activity" (p. 62) The concept is particularly useful in areas where negative aspects of selfhood may be under consideration (as in psychology), or where people can be broadly assumed to be acting according to a particular strategy with given ends (as in management studies, or certain areas of philosophy), but it has less utility in areas with a more experiential, artistic thrust (as, e.g., in postmodern anthropology) or focused on quantitative analysis (as in certain areas of economics and sociology).

Critical Summary

Goffman's theory has been criticized over the years. There is some basis for accusing him of rational action theory, namely, of assuming people to be continually rational and self-interested in carrying out their strategy: in *The Presentation of Self* he states directly that he is assuming that actors are behaving according to "enlightened self-interest" and, in his later work, reiterates that "rational decision-making is involved." Goffman answers his own critics, however, when he acknowledges that to act strategically is not necessarily to act rationally. It is thus worth bearing in mind that irrational as well as rational motivations for action should be considered when studying self-presentation.

A related accusation is that Goffman presents social activity in a negative light: that the image of humanity today which the reader gets in The Presentation of the Self is too biased and pessimistic and as a result of this, it is incomplete. Giddens suggests that Goffman focuses on certain situations and sites in which performances are necessarily altered in a way that hides the true intent of the actors involved. He offers that Goffman presents a cynical view of human race in which actors are overly self-conscious. Burns, however, notes that individuals in Goffman's writing are not actually presenting out-and-out deceptive self-portraits but playing roles within their repertoires in order to achieve goals (e.g., an intelligent young woman "playing dumb" in order to obtain a boyfriend,

because her goal in this case is not intellectual fulfillment). Although this may be a danger in using self-presentation theory, it is thus not inherently a problem for researchers.

More serious, however, is the criticism that the theory of self-presentation frequently leaves the nuances of power relations and social influences out of the picture. Although Goffman does acknowledge that, in that he suggests that the back stage and front stage access is controlled by a series of actors which includes not only the performers, his example of a Vogue model giving the impression of intelligence through posing in a photograph with a book ignores the fact that the model has little choice in terms of the impressions she conveys under such circumstances. Burns raises the critique that Goffman's work focuses on examples, without, for the most part, offering theories on how these social situations have come to pass, and that his focus on "rules" of behavior is reductive, ignoring social complexity. Giddens argues that Goffman's scholarship does not address the initial motivation of actors to address what leads them to enact certain performances. Giddens continues in his critique of Goffman by suggesting that his analyses lack richness in that it is overly focused on the micro-actions of actors and does not account for their social embeddedness. It is thus important, when working in self-presentation, to remember that individuals are influenced by wider social pressures.

Despite criticisms of Goffman's work as reductionist and cynical, the concept of strategic self-presentation thus continues to be relevant to case study research, due to its utility in exploring and analyzing human interaction in specific social situations.

Fiona Moore

See also Chicago School; Ethnography

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SENSEMAKING

Sensemaking, a concept first popularized by Karl Weick, is a heuristic involving seven social psychological properties that can be used to understand how people make sense of the process of organizing. Sensemaking offers a way of understanding the process by which different meanings are attributed to the same situation. More recently, the basic tenets of sensemaking have been applied to a variety of organizational events, including organizational disasters and organizational change. This has led to further refinement of the framework so that it takes into account some of its limitations; this refinement allows for an explanation of the consequences these potential different understandings might have on organizational outcomes.

Conceptual Overview and Discussion

The term *sensemaking* has been broadly used by a number of researchers to describe the process in which individuals engage to make sense of ambiguous situations. Weick's sensemaking model provides the most comprehensive description of the sensemaking process at both the individual and the organizational levels. The strength of Weick's sensemaking is in its ability to bring together the various strands of his earlier research into a comprehensive framework for understanding the social psychological and structural elements of organizing.

The origins of sensemaking are rooted in Weick's dissatisfaction with more traditional approaches to organizational analysis and his concern for process over outcomes. His initial intention was to provide a framework for understanding the process of organizing. His view of organizations as loosely coupled systems led him to explore the social psychological aspects of organizations. Thus, sensemaking is an alternative to mainstream methods of analysis, which see organizations as rational entities. By tying together various strands of social and psychological theories, including Harold Garfinkel's work on juries, Chris Argyris and Donald Schon's double-loop learning, and elements of Peter Berger and Thomas Luckmann's social constructionism, Weick was able to develop a full-blown sensemaking model.

According to Weick, through sensemaking "people make sense of things by seeing a world on which they have already imposed what they believe." The action of sensemaking is triggered by ambiguous or uncertain events that disrupt our routines and force us to deal with them—or, in this case, make sense of them. Early attempts at using sensemaking include analysis of organizational disasters and the processes that set them in motion. Through a study of the cockpit tapes of the Tenerife air disaster, Weick showed us how small separate failures could contribute to major disaster by suggesting that when interruptions of important routines lead to system breakdowns, people revert to familiar scripts and habitual responses. This 1990 study, which shows how interdependence, and sensemaking by the extraction of cues, lent plausibility to pilots' actions, is one of the earliest applications of sensemaking as an analytical tool.

Much of Weick's early work was used to analyze organizational disasters. In 1993, he again applied a form of sensemaking to the study of the Mann Gulch disaster, to show how organizations unravel. In this study of firefighters, most of whom died because they failed to heed the advice of their leaders to drop their tools and not try to outrun the fire, Weick linked identity construction with routines to show how the firefighters' sensemaking was made plausible when they faced contradictory cues, which made their actions seem contradictory. The analysis of Mann Gulch is significant because it stresses the importance that interlocking behaviors and structure have on the sensemaking process and behavior.

These two analyses formed the basis of a full-fledged sensemaking model that incorporated various elements and eventually led to the articulation and refinement of the seven properties.

Although interdependent, each of these properties, taken on its own, has the ability to partially explain action, but their strength lies in their holistic ability to dissect sensemaking events. The relevance of the properties is that they provide answers to the following question: What do we need to look at if we want to understand why an outcome has occurred? As a methodological tool, the properties help us to understand how and why different people can give the same event different meaning. These seven properties are described and explained, using the example of the Mann Gulch disaster, in the following paragraphs.

- 1. Grounded in identity construction. According to this property, who we are and what factors have shaped our lives influence how we see the world. Our identity is continually being redefined as a result of experiences and contact with others; for example, parents, friends, religion, where we went to school, where we work, and what type of job we do all affect how we view certain situations. In the case of Mann Gulch, the firefighters' inability to drop their tools was directly related to the identity associated with being a firefighter. To drop their tools was metaphorically the same as letting go of their identity. Thus, identity construction is about making sense of the sensemaker.
- 2. Retrospective. Sensemaking is retrospective. We rely on past experiences to interpret current events; thus, sensemaking is a comparative process. In order to give meaning to the present, we compare it with a similar or familiar event from our past and rely on the past event to make sense. For example, the training the Mann Gulch firefighters had received was directed toward putting out fires. Being told to ignore the fire and take a different course of action contradicted their retrospective sensemaking. Therefore, the majority of men were understandably confused when they were ordered to build an "escape" fire in order to reroute the existing fire.
- 3. Focused on and by extracted cues. The sensemaking process involves focusing on certain elements, while completely ignoring others, in order to support our interpretation of an event. Because

- sensemaking is retrospective, past experiences, including rules and regulations, dictate what cues we will extract to make sense of a situation. By ignoring the order to build the escape fire because it challenged their notion of what was right and wrong, the Mann Gulch firefighters were extracting cues that supported their training.
- 4. Driven by plausibility rather than accuracy. This property means that we do not rely on the accuracy of our perceptions when we make sense of an event; instead, we look for cues that make our sensemaking seem plausible. In doing so, we may distort or eliminate what is accurate and potentially rely on faulty decision making in determining what is right or wrong. With this property, we can see why the firefighters felt that their actions seemed plausible, although it was, as later discovered, not the right thing to do.
- 5. Enactive of the environment. This suggests that sensemaking is about making sense of an experience within our environment; thus, our sensemaking can be either constrained or created by the very environment that it has created. Similar to a self-fulfilling prophecy, this property maintains that the environment that has been created by the sensemaker reinforces his or her sense of credibility. In the case of the Mann Gulch situation, panic prevailed when the realization that the fires were out of control overwhelmed the men. This environment rendered them unable to consider the situation rationally and strengthened their belief that they should hold onto their tools and try to outrun the fire. This reliance on past experiences and inaccurate cues made their actions seem plausible (i.e., credible) as the right thing to do.
- 6. Social. This property acknowledges that the sensemaking process is contingent on our interactions with others, whether physically present or not. Also, an organization's rules, routines, symbols, and language will all have an impact on an individual's sensemaking activities and provide routines or scripts for appropriate conduct. However, when routines or scripts do not exist the individual is left to fall back on his or her own ways of making sense.
- 7. Ongoing. Sensemaking has no beginning or end. The process of sensemaking is a sequential process that never stops, because sensemaking

flows are constant. Although this seems to contradict the statement that sensemaking is provoked by shocks or ambiguity, Weick maintains that we are constantly making sense of what is happening around us but that we isolate moments and cues from this continuous sensemaking to make sense of the current situation, which we will be forced to attend to because of a break in the routine.

Weick initially explained that each of these seven properties is interrelated, although he allowed that one or another can be more dominant according to the event. More recently, Jean Helms Mills suggested that identity construction is pivotal to the sensemaking process and influences how the other properties are understood. Weick has acknowledged this importance and has also suggested that plausibility is another fundamental property in the sensemaking process.

Application

Helms Mills used sensemaking as a methodological tool to aid understanding of the process of change in Nova Scotia Power (NSP), a Canadian electrical utility. NSP is an organization that had, between 1983 and 2000, undergone a continual series of changes, including a planned culture change, privatization, and business process re-engineering. Rather than focusing on the outcomes of these changes, in terms of success or failure, Helms Mills conducted a number of interviews with both management and nonmanagement employees and then applied the sensemaking properties to the actions of different organizational actors in order to try to make sense of their different understandings of events leading up to, during, and following the planned culture change and re-engineering. In particular, the sensemaking properties helped to explain the president's perceived the need for change, how he decided on the specific change techniques, how culture change and re-engineering were understood by those involved in the implementation, why there were different levels of acceptance of the changes by organizational members, and what the implications of these varying understandings meant for the company in terms of acceptance of the change processes and the culture of the organization.

In the first instance, Property 1, "grounded in identity construction," was used to show how the

president's perception of the need for change and, in particular, humanistic change, was grounded in an identity construction that was based on different roles. Although there were many ways he could have interpreted the results of an employee attitude survey he commissioned, and numerous solutions to what he perceived to be the central issue, as a former politician, university president, and charismatic leader from a small town, his identity was constructed around his people skills and his desire to succeed in transforming NSP. Subsequently, his choices of culture change and re-engineering can be understood in terms of extracted cues (Property 3) that seemed plausible (Property 4) and social (Property 6); that is, we can understand why he selected techniques that at the time were popular management fads being used by other utilities and local businesses, which reinforced his identity as CEO of a utility that was on the cutting edge of management. Furthermore, both culture change and re-engineering were enactive of an environment (Property 5) where change was seen as desirable and almost necessary for organizations to engage in, albeit perhaps it was not always accurate (Property 4) or the best choice for everyone. Retrospection (Property 2) and the ongoing (Property 7) nature of sensemaking explain how the president rationalized the privatization of the company and the switch from culture change to re-engineering, a change that seemed to contradict the values that were part of the new culture. His decision becomes understandable if we recognize that the shock of privatization forced him to re-evaluate the company's strategy and, on the basis of past experience with change and a need to succeed, he sought out change techniques that had worked for other organizations.

Likewise, sensemaking was used to explain the varied employee reactions to the change programs, including acceptance and resistance, that were affected by geography, structure, and unionization. Retrospection and the construction of identity based on class in certain geographic areas were highly influential on the levels of acceptance, which was enactive of an environment in which there were historical reasons for the mistrust of management and fairly rigid hierarchical structures that led to long-standing conflict between managers and employees, which was passed on from one generation to the next and reinforced through the unions.

Also, employees made retrospective sense of culture change and re-engineering according to their past experiences with other changes NSP had introduced. This included factors such as whether they had been invited to be culture change facilitators or members of the business process initiative groups, or whether they were management or unionized employees, which affected their identities. At the same time, the properties of plausibility and focusing on extracted cues, not accuracy, explains how employees focused on certain events that occurred in the culture change process, for example, such as 4-day training seminars for management and 1-day facilitation sessions for employees, to reinforce their sensemaking and strengthen their desire to resist or work with the change. In addition to the study of change, Jean Helms Mills and Terrance Weatherbee have used sensemaking to study different responses between military and local emergency measures agencies, with particular emphasis placed on the property of plausibility. More recent studies have taken into account some of the limitations of sensemaking and have used a critical sensemaking approach.

Critical Summary

Sensemaking on its own is useful as a method for understanding the intricacies of organizational processes; in particular, it is useful for longitudinal studies in which making sense of the construction of the identity of key players can provide clues about the origins of resistance and conflict.

Sensemaking is limited in its ability to adequately account for structural influences on sensemaking activities; that is, it does not adequately explain how decisions can be constrained by contexts and organizational rules, or how these translate into social psychological outcomes (i.e., how certain decisions become understood in meaningful ways). Specifically, sensemaking has been critiqued for not addressing issues of power, gender, and context. On its own, it lacks the ability to explain why or how some sensemaking events come to be developed in the first place and how or why sensemaking moments are mediated through a series of ongoing interactions that are guided by rules of behavior.

Sensemaking also does not take into account whose voice is being heard or the framework of rules within which organizational members operate.

Although it frames our understanding of an event, it does not provide us with the background for motives of individual decision making; neither does it offer an explanation for the consequences interpretation has for the behavior and enactment of sensemaking and, subsequently, the culture of the organization. Even though sensemaking makes sense in context, research has shown that one of the limitations of the concept of context is that there is an unequal distribution of power within given contexts, which is unexplained. Finally, although contexts are gendered, sensemaking does not address how gender influences sensemaking activities. To address these weaknesses, a critical sensemaking model has been developed that merges Weick's sensemaking properties with Roberto Unger's notion of formative contexts and a rules perspective of organizational analysis.

Jean Helms Mills

See also Constructivism; Critical Sensemaking; Formative Context; Qualitative Analysis in Case Study

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SENSITIZING CONCEPTS

At the start of an inductive case study research, a researcher often makes use of a *sensitizing*

concept, a rather new and intriguing, though underdeveloped, construct that prompts the researcher to learn more about the subject by empirical and theoretical investigation. A sensitizing concept leads the researcher on his or her pioneering path to explore a rather unknown scientific field. In the course of the research project a meaning is gradually attached to this sensitizing concept according to the findings. What results from this research is a well-thought-out conceptual model.

Conceptual Overview and Discussion

In the early 1950s, American sociologist Herbert Blumer introduced the term *sensitizing concept* to distinguish it from a *definitive concept*. In a definitive concept a researcher describes precisely a class of objects in terms of the objects' fixed characteristics. Sensitizing concepts do not have such a specification and precise reference. Blumer himself stated in 1954 that definitive concepts provide prescriptions of what to see but that sensitizing concepts merely suggest directions along which to look.

The use of sensitizing concepts is particularly suitable for carrying out an inductive case study research project, in which the researcher chooses a research design based on the grounded theory approach. With only a minimum of prior scientific knowledge, the researcher develops the meaning of a sensitizing concept by embarking on an open, and rather unstructured, empirical and theoretical quest. The researcher formulates sensitizing concepts as points of departure and deepens the knowledge of the dimensions and aspects of these concepts during the course of research. This step-by-step approach often results in a conceptual model. From this point of view, a sensitizing concept forms the beginning of a new theory.

An inductive case study project that is carried out with the help of sensitizing concepts requires (a) a hermeneutical, or *verstehende* attitude from the researcher, (b) a continuous process of comparing empirical data and theoretical concepts, and (c) a careful and consistent use of the procedures and techniques of data collection and data analysis. The following paragraphs elaborate further on each of these requirements.

In an inductive case study the researcher embarks on a journey, like an explorer would do. This

search not only brings the researcher to wellknown regions but also leads to unknown areas where the researcher has trouble finding his or her way. The researcher must be open to all the impressions received while studying data and literature. An open mind—also called theoretical sensitivity—refers to a willingness to learn, to look at data from different angles, and to accept the natural complexity and the changeability of the research subjects. In social sciences, this is known as a hermeneutical or verstehende attitude, which is a legitimate scientific attitude, provided the scientific criteria of reliability and validity are met. An inquisitive attitude implies that the researcher must maintain a critical and skeptical attitude toward the development of his or her theory. It is essential that, in future research, the developed concepts are tested to determine their empirical validity, and if they cannot stand the test then these concepts should be set aside to make room for other sensitizing concepts.

The research technique associated with sensitizing concepts is often referred to as the method of continuous comparison. The researcher is constantly engaged in a process in which findings are compared with previously found phenomena or interpretations, or with the ideas and the notions that other, previous researchers have published. The researcher investigates whether the newly found phenomenon has the same characteristics as a similar phenomenon previously found or whether it shows different characteristics. There are many ways to make comparisons. The researcher can compare two empirical phenomena, two theoretical insights, an empirical phenomenon with a theoretical phenomenon, and so on. If the researcher wishes, he or she can switch from one comparative method to another. Therefore, this research technique has an iterative nature. Should the researcher come across a theoretical explanation halfway through the research project he or she may decide to consult interview reports or documents analyzed earlier and to take a fresh look at these, based on the explanation found.

It is of major importance that the researcher carries out these activities in an accurate and transparent way. Each step needs to be recorded to indicate how the researcher has arrived at certain conclusions. Standardized procedures and techniques will be useful here. A careful and consistent

use of these procedures and techniques enables critical fellow researchers to follow the development process of the new theory step by step, thus determining its value. One of the most important techniques for developing the initial sensitizing concept into a theoretical concept is coding: the systematic and transparent translation of empirical data into theoretical concepts and the analysis of the assumed relationship between these concepts. Different coding techniques have been introduced into the field of qualitative research. Anselm Strauss and Juliet Corbin, for example, in 1990 presented a well-known coding model based on their interpretation of the grounded theory approach. They distinguished among three steps of coding. The first step is open coding, which consists of ordering the collected data into phenomena and tentatively formulating labels that could interpret these phenomena. The next step is axial coding, a procedure in which the various concepts are correlated within a cause-and-effect diagram. In the third step, selective coding, the multitude of phenomena and the formulated key words are reduced by determining the key concepts and formulating the essence of the correlations between the key concepts and similar phenomena in a theoretical line of argumentation.

Application

The use of sensitizing concepts in inductive case studies is gaining ground. A growing number of researchers make use of sensitizing concepts to develop their theoretical insights. A fine example of such a study can be found in Yvonne Benschop and Hans Doorewaard's research on the distinction between men and women and between masculinity and femininity in organizations. In scientific publications in the field of women's studies there is a reference to the prevalence of underlying, powerrelated processes within organizations, which are said to be responsible for the persistence of gender incongruity. Upon this notion of underlying powerrelated processes, Benschop and Doorewaard based their sensitizing concept of "gender subtext in organizations." They then further developed this concept in an exploratory way by confronting the existing theories in this area with the material they had gathered empirically. They searched scientific literature on women's labor, women's studies, and

organizational theories and gathered information on these processes in a case comparison study in five offices in the banking industry. Using the different techniques of coding, they gradually worked out the various dimensions of their sensitizing concept. They considered the gender subtext to be a set of organizational arrangements and social practices that often implicitly (re-)produce a gender distinction. The results of the study showed that the gender subtext, as conceived by Benschop and Doorewaard, can be found in various and varying social contexts or organizational settings. During the course of their research the concept of gender subtext gradually took shape because of the continuous comparison that was made between the basic theoretical concepts of power, interaction, and identity on the one hand and empirical data on the other hand.

Critical Summary

The inductive case study approach flourishes when sensitizing concepts are used. Sensitizing concepts offer the researcher a transparent research design that can help him or her to develop consistent theoretical notions, often in the form of a conceptual model. However, it is then essential to test the new theory on these theoretical notions' empirical validity, and if they cannot stand the test then this theory should be set aside in favor of newly developed sensitizing concepts.

Hans Doorewaard

See also Coding: Axial Coding; Coding: Open Coding; Coding: Selective Coding; Grounded Theory; Inductivism

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SERENDIPITY PATTERN

The term *serendipity* is used in case study methodology to describe chance observations by astute observers that lead to new knowledge. Serendipitous findings, sometimes called *happy accidents*, are considered by some to be the source of researchers' "Eureka!" moments. Robert Merton makes a subtle differentiation between *serendipity* and *serendipity pattern*: Serendipity is the discovery of an unsought finding, whereas a serendipity pattern involves observing a surprising and irregular finding, recognizing that it is potentially strategic, and using it to develop a new theory or advance an existing theory. According to Merton, a serendipity pattern has three key elements:

- 1. The finding is *unexpected:* A researcher notices something that may not be related to the initial hypothesis
- 2. The finding is *surprising*, stimulating broader thinking to make sense of the finding
- 3. The investigator brings a *strategic interpretation* to the unexpected finding

Pek Van Andel classifies appearances of serendipity as *positive* (a surprising fact that the investigator uses for a positive purpose), *negative* (a surprising fact that the discoverer does not investigate or employ optimally), and *pseudoserendipity* (researchers discover something they were looking for in a surprising way).

Although the concept of serendipity is bathed in an aura of chance, one must be highly observant and astute to discover the serendipitous pattern. To paraphrase Louis Pasteur, the mind that is prepared is favored by chance. It takes skill to notice an unexpected finding, to assess the importance of this observation in relation to the particular research question, and to interpret what was discovered. In social science research it can be the serendipity pattern that becomes the cornerstone of understanding a phenomenon.

Conceptual Overview and Discussion

The term *serendipity* was coined in 1754 by Horace Walpole. Walpole derived the word from the fairy tale called "The Three Princes of Serendip," which tells of three traveling princes who made many discoveries. These discoveries were of things they were not looking for, and there was an element of sagacity or interpretation that took the observation to an understanding.

Serendipity is an 18th-century word that was, for a time, forgotten. It re-emerged in the early 20th century in the world of scientific and industrial research. Why did a concept with such potential disappear for such a long period? Some people blame the intellectual sentiment of that era, which was based on utilitarian philosophy and religion of the time. Attributes such as seriousness and control were valued, and chance, disorganization, and "chaotic" thought were frowned upon. William Whenwell declared that "No scientific discovery can . . . be considered due to accident." The reemergence of the concept of serendipity as used in research is attributed to Merton who, in 1946, wrote an influential paper on serendipity pattern and then teamed up with Elinor Barber to write a book about the word called The Travels and Adventures of Serendipity.

Today, the serendipity pattern is gaining enhanced credibility in research. Nassim Nicholas Taleb's recent book *The Black Swan: The Impact of the Highly Improbable* is about high-impact, low-probability events. Taleb uses John Stuart Mill's metaphor of the very rare black swan to show why these serendipitous occurrences may be important in research. It is the rare, the outliers (the black swans), that may become the most relevant and important findings for case study researchers. Simply put, with serendipity what researchers do not know becomes far more relevant than what they do know.

Taleb also uses the black swan example to illustrate a severe limitation to our learning from observations and the fragility of our knowledge; that is, one single observation of a black swan can invalidate what is known from millions of sightings of white swans. Besides Mill, Taleb was influenced by both David Hume and the 20th-century scholar Karl Popper, who focused on the problem of *induction* in logic, in which

one draws general conclusions from specific observations.

In case study research investigators develop serendipity patterns by watching for the unexpected and then giving appropriate weight to unintentional findings. Skill is needed to recognize the possibilities and to make sense of them in the analysis. Serendipity patterns play an important role in theory formulation. They help to open up a universe of possibility to the investigator. The resulting theories can be more robust and inclusive.

In whatever way a researcher uses serendipity, it is important to remember that a researcher's observational acumen—indeed, what a researcher may deem important—is shaped in part by cultural circumstances. The values and personal history of the researcher will influence what he or she observes and the relative merit he or she gives to observations and findings. In this way, serendipity patterns are shaped heavily by the humanness of the researcher. The noticing and recording of serendipitous findings relies greatly on the person as the instrument of data collection and analysis.

Application

There are thousands of examples of serendipity, from sources ranging from fictional literature to scholarly research. Van Andel classifies these into four domains: (1) science, (2) technology, (3) art, and (4) daily life. For example, in the domain of science, X-rays were discovered when Wilhelm Röntgen noticed that rays from a cathode tube penetrated black paper. Similarly, Alexander Fleming's important discovery of penicillin can be attributed to serendipity. There is growing acknowledgment that many important discoveries of the past were chance occurrences noted by perceptive observers.

Recent references to serendipity and serendipity pattern can be found in reports of case study research. For example, Marcia Delcourt conducted two case studies of advocates of gifted education. She discusses the "ability to take advantage of serendipity" as key to success toward the advocacy cause. Tony Jefferson, in a case study of his own work life experiences, lists serendipity as a central theme in explaining his life events. Claire Batchelor, Evelyn Parsons, and Paul Atkinson, of the University of Wales, are muscular dystrophy

researchers. They explored various scientists' accounts of their research on this topic and emphasized the mediating role serendipity played in the discoveries made.

Critical Summary

Serendipity patterns can lead to the finding of something new. It may take time before an investigator understands the usefulness of this new finding, before the import of the serendipitous discovery can be fully understood and appreciated. The serendipity of a certain finding can easily be underestimated or overestimated, denied, or even invented. Serendipity is a slippery phenomenon, one to which many discoveries and events in science, technology, art, and daily life have been (wrongly or rightly) attributed. Investigators who claim serendipity need to reflect carefully upon the true origin of the surprising finding. Investigators who find something that is not consistent with their hunches and hypothesis are cautioned to consider the unexpected finding carefully before dismissing it. Above all, serendipitous discoveries require the active engagement of the curious mind of the researcher. Progress in research requires broad research programs in which researchers have autonomy and are able to shift their attention to strategic, unexpected occurrences if they encounter something of potential significance. Serendipity should continue to play a role in the future of research, including case study methodology.

Beth Perry and Margaret Edwards

See also Case Study in Creativity Research; Deviant Case Analysis; Extreme Cases; Metaphor; Researcher as Research Tool

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SEXUALITY

Sexuality refers to sexual preferences, real or fantasized; bodily desires for others; and the means of their social realization. It includes the extent to which sexual norms are implicated in nonsexual social arrangements, forms and relations, which can include domestic, economic, institutional, legal, organizational, and political systems. It can be reciprocated or unrequited; flirtatious or pornographic; consensual or exploitative; romantic or perverted; idealized, fetishized, and commercialized; intimate or intimidatory; loving and healing; political and predatory. It may even be violent to the point of death.

Conceptual Overview and Discussion

Heterosexuality means sexual preference for the opposite sex, homosexuality a preference for the same sex, bisexuality a fluid preference. Transsexuality indicates someone who assumes the outward appearance and perhaps some of the physicality of the opposite sex, possibly augmented by hormones, but who does not undergo gender reassignment surgery, thereby passing a point of irreversibility that would make him or her transgendered.

The broad recognition of the social impact of sexuality in various spheres has been relatively recent, largely as a consequence of the consciousness-raising efforts of "second wave" feminism in the 1960s and 1970s and the focus on de facto discrimination and the almost simultaneous efforts of women, facilitated by the advent of oral contraceptives, to take control over their bodies and their sexuality. Organizations and institutions became a major site of such struggle. The gay and

lesbian movements followed closely and forced a greater sense of diversity into the sexuality debates of the 1980s.

The initial direction of these movements was to focus on directly discriminatory language, behaviors, and exploitative images, such as in advertising, where women were represented as either domestic and maternal or sexually available, and subsequently to expose and critique any more indirectly discriminating social arrangements that worked by normalizing an implicitly preferred sexuality. This is most commonly experienced as heteronormativity, a privileging of heterosexual relations, propagated through social power strategies of homosociality. Queer theory takes this critique further, taking aim at majoritarian strategies that seek to normalize subgenres of sexuality within the homosexual arena. Often drawing on poststructural theory, this approach connects sex and power and exposes the often-subtle but profoundly effective ways in which minorities, which can include intellectual minorities, are marginalized or erased from the social scene. In the field of organization studies, some critical approaches follow similar minoritarian strategies and are often marginalized, suppressed, or rejected by the mainstream.

Jeff Hearn and Wendy Parkin first theorized organizational sexuality, emphasizing that sexuality and organization are mutually constituting. Joanna Brewis and Stephen Linstead built on this work by examining the similarities between normalized work and sex work, in particular in terms of commodification, self-identity, and performance and the role of desire in what they termed a *heterotics* of organization. Their work also considered the potential of the organization of specific sexual practices, such as sadism and masochism, for providing insights into conventional organizing processes.

Application

Over a 30-year period, *sexual harassment* has developed as the major area of impact of the consideration of sexuality in case work in organizations and institutions. This has also had a methodological impact on field work, originating in anthropology, where field workers began to acknowledge the sexual dimension of their research roles. As Wim Lunsing did, some researchers now

openly admit to having had sexual relations with respondents and argue that the impact of this on their research was not necessarily negative, and often quite the opposite in that it gave them access to otherwise unavailable information and experience. Discourse analysis has made an important contribution in a wide range of studies whose key insights are that a broad spectrum of activities could be considered to be harassment; that the interpretative context is critical; and that harassment is primarily an issue of power rather than sexual desire—sexuality being the medium of its realization rather than the cause.

Case studies of *sexualized employment*, where sexuality and its display are essential parts of the job role, have been undertaken, encompassing jobs in which emotional labor is a significant component. One example of this is Steve Taylor and Melissa Tyler's study of airline cabin crews; through tourism; modeling; waitressing and dancing as part of the entertainment industry; to the adult entertainment industry, including sex work.

Case studies of *sexualized experiences in employ- ment* have included studies of boss–secretary relations;
sexualized male-dominated managerial, shop floor,
office and call-center environments, such as David and
Margaret Collinson's study of an insurance company;
sexualized power and authority relations more generally; the effect of sexuality on decision-making processes, including promotion, appointment, and work
allocation; total institutions, including the military
and prisons; and even sabotage.

Case studies of *intimacy*, *love*, and *romantic liaisons* have also been conducted, ranging from accounts of experience to attempts to theorize attraction. These relate to genuine concerns by organizations over the effect on organizational dynamics of successful, failing, and failed relationships. The number of studies remains small, however, although attention is increasing, with Kathleen Riach and Fiona Wilson's study of workplace romance the most significant recent contribution.

Case studies of *lesbian*, *gay*, *transgender*, and *bisexual* experiences in and outside organizations have looked at gay-run businesses and occupations with a traditionally strong gay presence, such as hairdressing and entertainment; experiences of politically organizing as a lesbian/gay/transgender/bisexual community; and experiences of accessing

heteronormative organizations and institutions such as the police, the military, and public service, including Surya Monro's 12-case comparative study of local authorities in the United Kingdom. These case studies have also considered nonreproductive familial relations, held together as relationsfor-themselves, as models for new forms of *sexual citizenship*.

Critical Summary

Sexuality has been seen as closely connected with power and knowledge, and in particular with a privileged male discourse heteronormativity. Recent work has argued for a turn from a critique of such phallic masculinity (although it is still considered important) toward the recognition of a wider range of hetero-, homo-, bi-, and transsexualities. This has two important effects. First, it brings a recognition of the reality of diverse bodies back into consideration as the corporeality of difference, which entails acknowledgment of the importance of previously marginalized affect in creative relations. Second, by interrupting assumptions about constructed normality, consideration of sexuality challenges taken-forgranted knowledge about social and organizational relations and opens up the potential for alternative realities.

Stephen Andrew Linstead

See also Liberal Feminism; Masculinity and Femininity; Patriarchy; Poststructuralist Feminism; Power/ Knowledge

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SIGNIFIER AND SIGNIFIED

In linguistics, a *signifier* is a word or related symbol that refers to a class of objects; the *signified* is the object referred to. For instance, the word *dog* is an English language signifier for a class of canine animals.

Conceptual Overview

These two terms represent an important distinction in the linguistics of Ferdinand de Saussure and, though not exclusive to his theory of linguistics, they are almost always used in this context. Although Saussure worked in relative obscurity in his own lifetime, since the 1960s Saussurian linguistics have become influential as the conceptual underpinnings of the heterogeneous group of approaches to social theory often termed poststructuralism and postmodernism. The most popular representatives of this scholarship are Michel Foucault and Jacques Derrida, although they are but two among quite a large and heterogeneous group. The distinctive assumption of Saussurian linguistics is that the signifier is arbitrary, from which it follows that language is a social construction, not something that can have a natural or objective reference point.

Suppose a child points to a white bird in the park and says "duck." The word "duck" is the *signifier*. All birds to which the child might point when using this word are the *signified*. The signifier and signified together form the *sign*. A fourth

term is necessary for this explanation: referent. The particular bird to which the child is pointing is the *referent*. This term is not frequently encountered, but it is important to bear in mind so that one is aware of the distinction between the category ("duck") that is bounded by the sign and the specific referent ("this duck I am feeding"), which is but one example of the things to which the sign applies. Thomas Kuhn uses the example of birds in the park to discuss the role of boundaries in determining signifiers and the signifieds to which they are applicable. It is quite possible that at one point in a child's life every bird that swims in the pond is "duck," and at a later point a boundary is drawn between the signifier "duck" and the signifier "swan." If the child grows up to become a bird watcher, a very great many boundaries will eventually balkanize the once-broad community of "duck."

Two related terms one frequently encounters are signification and signifying. Both terms identify the act of producing signs. Frequently, these terms "signify" that the speaker/writer is drawing attention to the features of one of more discursive systems (see the Discourse Analysis entry). For instance, there has been an ascendance of individuals with master of business administration degrees in American healthcare management in the last 30 years, accompanied by a decline in the influence of individuals trained in the area of public health. One might look at management and public health as two discursive systems relative to signifying patient care. One might, for instance, note that as management has become more influential, patient care is signified less in terms of community welfare and more in terms of financial efficiency and effectiveness. Thus, signification of what healthcare means can have quite different meanings depending on whether one is signifying within the discourse of management or the discourse of public health.

The Sign Is Arbitrary

Stating that the relationship between the signifier and that which is signified is arbitrary is a radical departure from the Western, modern, analytical assumption that language merely identifies naturally occurring categories (i.e., those that exist in nature). Consider the phylogenetic tree of

biology, which arranges every existing species into a neat, seven-level hierarchy. Many would argue that this merely reflects differences that exist in nature, but anyone who has studied comparative anatomy knows that the determination of which characteristics to prioritize in clustering and grouping is always a matter of interpretation and judgment, not a mere act of discovery. There are animals that are chlorophytic and plants that are not, which subverts the rule separating plants from animals. Jellyfish and their cousins (e.g., sea anemones), even ants, create innumerable blurred boundaries between organism and group. Is a "colonial organism" an individual or a group of organisms? Is an ant colony possibly a single organism? The foundational tool for phylogenetic categorization is *speciation*, which creates the building blocks—species—of the system, yet even this notion is based on a heuristic, not a natural law. If two groups of organisms cannot mate and produce viable organisms, they are considered separate species. This has been a useful rule, but nowhere is it written that ability to procreate should be the fundamental principle upon which all life is to be categorized.

The phylogenetic tree has been demonstrably useful but, as Thomas Kuhn has powerfully argued, it cannot be shown to be more true than other systems. Even with a system of signs that is so strongly in accord with the empirical evidence, discovery is a process that depends on interpretation, what some would call social construction. This point is highly significant because, unless the boundaries between categories of things are natural, the factors that determine where boundaries are drawn literally create reality. They do not produce physical reality, of course, but they determine what it can mean. Since the late 19th century, the progress of Western knowledge has led to a deep skepticism about the ability of knowledge to directly access physical reality. Today, quite a large segment of the social sciences treats reality as being something that is necessarily mediated by human interpretation. This has resulted in a shift of emphasis from the positivistic goal of transcending language to a more constructionist project of understanding the active role of language in turning empirical data into social meaning. Treating the signifier-signified relationship as arbitrary facilitates such questioning.

Application

Until late medieval times, the Anglo Saxon word wyf simply meant a female person. At about that time, women came to be redefined with reference to men. Woman is the modern version of wyfman, a female man. Similarly, wyf has become wife, a word that defines a woman by reference to her husband. At that time, there was no longer a word for a female person that did not describe her with reference to a man. If we assume that the structure of language is the archaeological evidence of sedimented social values, beliefs, and practices, this is not mere wordplay but a red flag marking a major shift in the practice of gender in English life.

Foucault's major works are examples of studying the shifting relationship between a signifier and a signified. For instance, in *Discipline and Punish* he explores how what is signified by the signifier "crime" enters into thoroughly different social relationships of meaning and power in three different historical epochs. In *Madness and Civilization* he follows the same approach relative to the signifier "madness." Underlying these studies is the assumption that things do not have inherent meanings; instead, their meanings are constructed through social relationships of power. The evidence of this construction can be studied in language.

Critical Summary

Understanding signification is central to research approaches that take a discursive approach to knowledge. These are most closely allied with interpretive (a.k.a. constructionist) research approaches developed in anthropology and sociology. The metaphor of text provides a framework and suggests a general methodological direction for studying the process of social meaning construction. One must not, however, assume that all research claiming to be discursive systematically analyzes the social processes that give meaning to signification. Because the term is currently in vogue, many studies that simply analyze speech utilizing established interpretive techniques from communications studies are presented to the reader as discursive.

See also Discourse Analysis; Langue and Parôle; Postmodernism; Poststructuralism

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SIGN SYSTEM

Sign systems, also called *symbol systems*, are verbal (e.g., words on a page, oral speech) and nonverbal (e.g., illustrations, gestures) languages used on their own or together (e.g., in multimedia forms, such as a Web site containing audio/video clips, or paragraphs of written text) for the purpose of sending and receiving messages. *Semiotics* is the science of signs. Case study research involves the collection, analysis, and interpretation of multiple sources of information that use multiple sign systems. All sign systems are socially and culturally embedded.

Conceptual Overview and Discussion

In today's world, in addition to what has traditionally been thought of as language, such as spoken or written communication, individuals also use sign systems that involve a variety of symbols to transmit meaning. Sign systems include, for example, mathematical and musical notation and visual and gestural systems. With the rise of electronic mediation of ideas, particularly through the World Wide Web, people now can readily create

and share information encoded in a variety of sign systems. A single Web site might contain written comments, photographs, and links to audio and video clips.

A defining characteristic of case study research is that it explores current phenomenon within the context of the real world. Case study researchers are concerned with observing specific cases of how individuals construct meaning through their use of sign systems. Individual participants actively construct meaning on the basis of their current understandings of the world and how it works, through sign systems that are embedded in social activity within the cultural community. Researchers need to learn the codes (or ways of talking and doing) associated with the phenomenon under study.

Case study researchers develop understandings of participants' worlds by systematically collecting, analyzing, and interpreting participants' use of multiple sign systems. They can collect data from a variety of sign systems, singly or in combination. For example, interviews involve not only the sign system of oral language but also accompanying gestures and other body language, which may be captured through video recording. Researchers' field notes can be supplemented by illustrations and photographs. Audiovisual artifacts, such as participants' drawings, may be accompanied by written comments, thus combining visual and written language sign systems. In addition, researchers can elicit commentary from participants by providing them with, for example, visual prompts such as artifacts or photographs.

If more than one sign system is involved, researchers need to consider more than one form of analysis. Roland Barthes, for example, suggests looking at visuals through looking first at *denotation*—what people and objects are seen?—followed by *connotation*—what ideas do things stand for, or what are they signs of? Interpretation can be presented through a synthesis of evidence obtained from all available sign systems.

Sign systems are culturally embedded. Data produced as a result of participants' activities, therefore, are culturally encoded signs and need to be interpreted as such. For example, the color red expresses "danger" in Western cultures and "happiness" in Eastern ones. Case study researchers

also need to be sensitive that some sign systems—spiritual/religious rites, for example—are privileged or culturally private, and access to them may be restricted.

Application

Two examples of case study research focusing on sign systems are discussed in this section. One study, conducted by John Potter, analyzed video production by young learners; the second, conducted by Charmian Kenner, Gunther Kress, Hayat Al-Khatib, Roy Kam, and Kuan-Chun Tsai, examined how young children engage in learning more than one writing system at the same time.

Potter's study was part of a larger project that sought to capture students' readiness for the primary-to-secondary education transition. This particular case study presented an analysis of short digital videos created by two children, age 11, in their final year of an inner-city state primary school in London. These students used various symbolic modes to illustrate their readiness for the transition. For example, during their editing process they added music from their own CDs, sound captured from the camera, and written words for headings. The case study used cultural perspectives to interpret the sign system traditions of multiple representations of meaning created by the student participants.

Kenner and colleagues' work involved six case studies of bilingual 5- and 6-year-olds who attended community language schools. The children's literacy interactions were observed in their homes and in classroom and peer teaching sessions. Data were obtained through observations of children learning two different scripts: Chinese and English, Arabic and English, or Spanish and English. Data also were obtained through interviews with teachers and parents about the children's literacy experiences. Qualitative analysis focused on situations in which children used talk, action, and visual representation to express their views about the relationship between form and meaning in each writing system. The study used a social semiotic framework whereby script learning was seen as a process of meaning-making from information available in specific sociocultural contexts.

Critical Summary

An understanding and use of multiple sign systems offers case study researchers diverse means for accessing and eliciting participants' interpretations of their worlds. Understanding that all participants use signs in ways that reflect their sociocultural context will make researchers more able to gather rich data and to interpret such information in sensitive ways. In addition, using prompts from a variety of sign systems will elicit greater variety of response from participants. The challenge is to engage sign systems that are appropriate for the particular case under study.

Deborah L. Begoray and Elizabeth M. Banister

See also Cultural Sensitivity and Case Study; Documentation as Evidence; Symbolic Value

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SIMULACRUM

The *simulacrum* (plural: *simulacra*) is a concept that describes the phenomenon whereby what is presented, in particular through the media but also through more pervasive culturally significant spectacles, can no longer be assumed to refer to any real or actual state of affairs. The simulacrum, then, is a presentation of something that is specifically not representative of anything else, other than itself. As such, it represents a serious challenge to traditional assumptions about the role and value of "truth" or "accuracy" in the processes of cultural communication.

Conceptual Overview and Discussion

The contemporary use of the term *simulacrum* was popularized by the French sociologist and philosopher Jean Baudrillard (1929–2007). Applying a background in both Marxism and semiotics to an examination of the rapidly growing dominance of electronic mass media, Baudrillard found the semiotic assumption of the connection between the signified and the signifier to be increasingly inadequate in facilitating an understanding of the emerging forms of cultural communication. The simulacrum then, is an offshoot of a commodity-driven tendency to simulate what is considered venerable, genuine, real, or valuable in both monetary and nonmonetary terms. However, where the motivation to simulate or imitate is often understood to be grounded in an interest in preserving or extending the virtues of authenticity or "the genuine article," where this refers to either a collection of admirable personal virtues or to material artifacts of great cultural significance, the simulacrum posits the effective extinguishing of any such modernist or structuralist motivations. Instead, cultural expression creates what Baudrillard refers to as a hyperreal order, an order characterized by a perceived overemphasis on, and a preoccupation with, presentation at the expense of a more traditional understanding of representation.

Insofar as what is presented to us is conventionally understood to be representative of and so in the service of something else—for example, advertisements for the purpose of increasing profits, a campaign speech in the interest of political power, demonstrations in pursuit of social justice, or art in the service of beauty or larger "truths"—the simulacrum suggests an order reduced to and largely transfixed by the immediacy of multiple presentations. What is threatened by a hyperreal order, therefore, is both the critical capacity to investigate in order to understand the connections between what is presented and the underlying truth or truths of our cultural surround and, more fundamentally, any assurance that doing so could or even should culminate in reliable insights into the nature of the social order.

In short, the point of the simulacrum is not simply to awaken and re-energize this diminishing critical capacity. This is because from the standpoint of the simulacrum the only real truth is that the legitimacy of these underlying truths has been so thoroughly undermined that the traditional commitment to their revelation is no longer justified. The problem that animates and provokes an investigation guided by the insights of the simulacrum, then, is the conviction that our contemporary cultural practices and forms of expression effectively both conceals and diverts us from *this* truth.

Application

Within the context of a case study of a particular cultural phenomenon an awareness of the essential features of the simulacrum recommends that the conventional cultural knowledge related to the phenomenon must be as closely examined as the phenomenon itself. This is because the point of the examination is less to increase the available knowledge of the topic at hand than to achieve a deeper appreciation of the fate of contemporary culture itself. As such, the examination of conventional cultural knowledge and attitudes surrounding a phenomenon serves as a point of entry into a discussion of both the mechanics and the effects of contemporary cultural communication. The attraction of employing the idea of the simulacrum as a method for case study research, therefore, suggests a commitment to both the timeliness and urgency of this discussion.

In his discussion of the Watergate scandal, for example, Baudrillard begins by examining the significance and function of its designation as a scandal. The fact that the series of illegal activities organized and authorized by President Nixon and his staff during the early 1970s is understood as scandalous makes sense only against the background of a range of expectations about political leaders and the legitimate pursuit of political ends. Referring to the activities of the Nixon administration as scandalous conceals an essential dissimulation at the heart of the political system itself. As Baudrillard emphasizes, there is no scandal. The accusation of an absence of moral rectitude in these political actors only serves to conceal a much more pervasive absence at the heart of the capitalist system that the political apparatus commits to supporting and sustaining. Labeling political behavior as scandalous, then, effectively conceals the flaw in the expectation that a moral consciousness will guide this system or save it from its own fundamentally amoral logic.

The simulacrum, then, provides a powerful conceptual framework for the study of a wide range of cultural phenomena, especially those associated with debates surrounding the promotion of social welfare or potential harm to the collective good. Case studies of recent developments in technology, debates surrounding systems of education and techniques for educating, and explanations for the cause of and response to social inequality, new forms of mass entertainment, as well as explorations of all forms of artistic expression, could all be enriched by an appraisal of the simulacrum's role and effect.

Critical Summary

The simulacrum emerges as a theoretical construct in the wake of a largely critical cultural analysis of a perceived preoccupation with presentation, especially as found within the context of Western capitalist societies. However, the force of the simulacrum lies not simply in the awareness that things are not as they appear but instead that our very knowledge of this (which takes the form of a certain cultural sophistication) can itself be deceptive. This is in part because the very idea of an illusion is challenged by the recognition that any putative reality on which an illusion depends can no longer be trusted to exist, let alone provide moral direction for individual or collective social coexistence.

David A. Lynes

See also Postmodernism: Poststructuralism

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SINGLE-CASE DESIGNS

Single-case designs are distinctive of, and in contrast to, a research design that involves multiple cases in a study. Varied by foci of analysis, a *holistic single-case design* tends to examine the global nature of a case study organization, program, or site with a singular unit of analysis, whereas an *embedded single-case design* is characterized by multiple units of analysis within a case study research.

Conceptual Overview and Discussion

Single-case designs are commonly used approaches to the planning of a case study inquiry. In analogy to a single experiment, Robert Yin describes a series of circumstances under which a single-case design can be appropriately employed to achieve the goal of a case study research. Notably, a critical case can be utilized to confirm, challenge, or extend an existing theory through testing related propositions or suggesting alternative explanations. An extreme case makes a good instance for the documentation and analysis of an event because of its uniqueness or rarity in occurrences. Representative cases are often used as a caricature of an event or entity that typically reoccurs and thus these are used to show how lessons from one case can be applied to (generalized) to the next. The opportunity or privilege of gaining access to a site or phenomenon that is otherwise inaccessible to researchers justifies the use of a revelatory case on the grounds of uncovering issues of common concerns, whereas investigating a phenomenon at different points in time calls for a longitudinal case to elucidate changes or analyze trends over time.

Defining a case and its units of analysis is a major step or component in developing a single-case design. Depending on the units (or levels) of analysis to be implemented in the research, a single-case study can either follow a holistic or an embedded design. Very often, a case can be an individual, as in the instance of life histories, in which a study's subject forms a holistic unit of the analysis. It can also be an association with lower level constituents, such as chapters and members, which may involve multiple units of analysis as in an embedded design. In the design process,

defining units of analysis comes after, or as a result of, the objectives and questions of a case study. In general terms, the formulation of research questions and study propositions should lead to the selection of appropriate unit or units of analysis.

Yin discusses the use of validity and reliability as conditions or criteria to watch for in order to maximize design quality in single-case studies. He notes theory development as an essential part of such a design regardless of whether an ensuing case study's purpose is to develop or test theory. In view of a typical criticism that the external validity of single-case designs is an inadequate basis for drawing conclusions, Yin states that in such designs the notion of generalization is meant to analytically generalize a particular set of results to broader theories, in which reliability is taken as the repetition of the same case study by another investigator or at another time, rather than intended as a replication of one case design to another case.

Nonetheless, the variants of single-case designs have both strengths and weaknesses. As Yin notes, although a holistic design has merits with its unitary focus and an underlying theory of a global nature, such an approach could result in a case study being conducted at an abstract level, or could cause a shift in the nature and types of questions a study initially intends to address. Presumably, as a study proceeds, the use of emerging evidence may render such a design inappropriate for the guestions initially asked. On the other hand, whereas an embedded design has strengths in focusing a case study on a set of subunits for analysis, a potential challenge with this strategy lies in the investigator's attention (or lack thereof) to both the analytic units and the broader context or contexts at the same time. Consequently, failure to return from a lower level of analysis to a higher level could transform the focus of an embedded endeavor into the context of the case study undertaking.

Application

It is notable that a researcher's special access to a phenomenon or situation that is not conventionally subject to scientific scrutiny justifies a revelatory or exploratory case study. Such an application can be seen in Anders Sørensen's story of backpackers, told through an ethnography of a special traveler com-

munity on the road. Through a holistic single-case design with individual travelers as key informants, Sørensen aimed at gaining an understanding of these international backpackers. A theory of "culture-on-the-road" was employed to both allow for prolonged and continuous interactions with the study subjects and to further the analysis of a backpacker culture in light of their identities and norms, values and conduct, and communications and interactions en route among these travelers themselves. The ethnographic case study was based on Sørensen's 2-year participant observation, which has resulted, in situ, in numerous formal in-depth interviews, semiformal discussions, and informal extended conversations with backpackers in north and east Africa, the Middle East, India, and southeast Asia. In contrast to anthropological conceptions of culture as typically either located (e.g., in a fixed locale) or bounded (as in the case of a nonsettled group, e.g., nomads), the study found that a backpacker culture falls outside or beyond these conventionally held domains. It was concluded that, to better comprehend backpacking as a culture, the conception should allow the notion of culture to "take place" wherever a place is physically localized, through continuous creation or re-creation of the backpacker as a role typology of tourists.

An embedded single-case design is notable for its adoption of multiple units of analysis in the course of an inquiry. Such an example can be found in a doctoral research on the social structure of an applied scientific community through the examination of a professional research association. With an embedded design, Honggen Xiao's case study of the Travel and Tourism Research Association focuses on members, chapters, and the association as a whole at three distinct levels of analysis, with an intent of testing existing theories on scientific communities in the relatively new context of travel and tourism research.

The use of multiple units of analysis—at the levels of members, chapters, and the association—is dictated by the study's objectives and research questions as well as by the current organizational structure of the association. The study addresses research communication, professional networks, and capacity building of the association as an applied tourism research community from the distinct perspectives embodied in the three levels of analysis; the purpose of this embedded

design is to elucidate the role of each in facilitating (or deterring) member communications, professional networking, and the creation of a sense of community through the association's conferences and activities. The differences among chapters, and the tensions between chapters and the association headquarters, provide a dynamic context for the interpretation of case study results.

In terms of implementation, a number of tactics outlined by Yin for case study preparations apply in this undertaking. In the conception stage, the research idea was communicated to the association's executives, with the purpose of establishing goodwill, gaining access for research, and obtaining input from the association's current and former presidents. Although the perspective on research communication and professional networking is primarily informed by the scientific community literature, such a focus is also seen as very timely for the membership community at large, because they are presented as priority issues in the association's strategic plan. Moreover, the study draws substantially from a research committee whose members are highly involved in, and familiar with, the case study association. From the researcher's perspective, the study also benefits from himself being a member of the community. Membership access to the association's archives and information, and participant observation from the association's prior conferences and activities, add to the contexts for analyzing results.

Generalizing from case study results to theory is essential in implementing an embedded design. In Xiao's study a deductive logic applies, because the research questions are informed by the scientific community literature and archival research of the association; these questions are operationalized through a quantitatively designed questionnaire, with results anticipated to test or verify existing theories about research communications and knowledge networking, and their roles in, or contributions to, capacity building of a scientific community.

In this embedded case study of tourism research associations the incorporation of multiple units (or levels) of analysis helps to link study results to research propositions. For example, with respect to research communication among the association members at the individual level, the study confirms a distinction between academics and practitioners and lends support to the notion of a two-community

theory in terms of research production and knowledge use. At a relatively higher level of analysis the study finds that professional networks not only form within-chapter boundaries but also are (and perhaps more importantly) developed on the basis of members' research interests and expertise. Members of the association are found to have formed distinct clusters based on the frequency and variety of information sources they have consulted for professional communication. In addition, the study finds that the strength of ties among members is both a cause and consequence of the size of the community. Despite the diversity of membership composition, the overall association community is perceived as becoming overly academic, and the association management as a whole is seen as an important facilitator of scholarly networks. Furthermore, although the holistic role of the association in the capacity building of a community of tourism researchers is acknowledged (e.g., through annual conferences and other association programs), its current chapter structure and the geographical locations of its individual members appear to be an impediment to the creation of a sense of community.

Critical Summary

Single-case designs, with holistic and embedded variations, are commonly used in case study research to either develop or test theories in scientific documentation. Although such a design has strengths in that it sets a clear focus on its unit of analysis and that it helps the researcher achieve an in-depth understanding of a phenomenon in its context, researchers using single-case designs are cautioned about the potential shift in the focus and/or nature of a study in the course of implementation. An operational definition of the case and its unit or units of analysis needs to be in place to ensure that such a design is appropriate and relevant to the issues and questions raised for the inquiry.

Honggen Xiao

See also Analytic Generalization; Multiple-Case Designs

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SITUATIONAL ANALYSIS

Situational analysis is a new approach to qualitative data analysis with deep roots in the grounded theory method, symbolic interactionism, feminism, the poststructural work of Michel Foucault, and Anselm Strauss's social worlds theory. The key analytic goal is to understand the situatedness and relations of action and interaction in the phenomenon of interest—the case being studied.

Situational analysis involves making three kinds of maps: (1) situational maps, which lay out the major human, nonhuman, symbolic, discursive, and other elements in the situation, provoking analyses of relations among them; (2) social worlds/arenas maps, which lay out the collective actors and their arena(s) of commitment; and (3) positional maps, which lay out major positions taken and not taken in the discursive data. This method can be used across many disciplines in a wide array of research projects drawing on interview, ethnographic, historical, visual, and/or other discursive materials, including documents. It allows researchers to draw together studies of discourses and agencies, actions and structures, images, texts and contexts, histories and the present moment to analyze complex cases in depth. It is especially useful in multi-site research.

This entry offers an overview of situational analysis and the three kinds of maps. It then focuses on using situational maps from project design to final write-up stages of research.

Conceptual Overview and Discussion

Situational analysis goes beyond the conventional qualitative methods assertion that "context matters" in considering a case. In contrast, situational analysis asserts that there is no such thing as "context"; instead, the conditions of the situation are in the situation. Hence, the conditional elements of the situation need to be specified in the analysis of the situation itself because they are constitutive of it, not merely surrounding it or framing it or contributing to it. They are it. The situation itself is the key unit of analysis. Cases cannot be abstracted from situations. Cases are situations.

The elements of the situation to be taken into account are laid out in Figure 1. The fundamental assumption is that everything in the situation both constitutes and affects almost everything else in the situation in some way and are conditions of the possibilities of meaning-making and action. People and things, humans and nonhumans, fields of practice, discourses, disciplinary and other formations, visual images and symbols, controversies, organizations, and institutions can all be present and mutually consequential. The empirical question is "How do these conditions appear—make themselves felt as consequential—in the situation?" As a part of doing systematic grounded analysis, situational maps offer new relational ways to specify empirically.

Situational analysis is accomplished through mapping and memoing. First, the situational map lays out the major human, nonhuman, visual, discursive, and other elements in the research situation of interest and provokes analyses of relations among them. This map is intended to capture the messy complexities of the situation in their dense relations and permutations. Situational maps intentionally work against the usual simplifications so characteristic of scientific work in particularly postmodern ways.

Second, social worlds/arenas maps lay out the collective actors and their arenas of commitment where they engage in ongoing negotiations. They offer mesolevel interpretations of the situation, engaging its social organizational and institutional dimensions. These maps are also postmodern in their assumptions: We cannot assume directionalities of influence; boundaries are open and porous; negotiations are fluid and ongoing. The empirical questions are "Who cares about what, and what do they want to do about it?" Negotiations of many kinds, from coercion to bargaining, are the basic social processes. Things could always be otherwise.

Third, positional maps frame the major positions taken and not taken in the data vis-à-vis

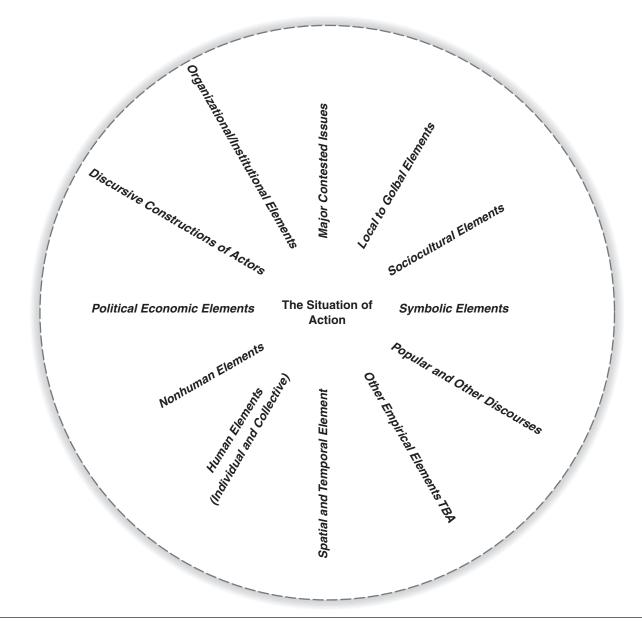


Figure I Situational matrix

Source: From Adele E. Clarke, Situational analysis: Grounded theory after the postmodern turn, p. 73. Thousand Oaks, CA: Sage (2005). Copyright 2005 by Sage. Reprinted by permission.

important concerns and controversies in the data, laid out as axes of variation and difference. Significantly, the positions are not aligned or even articulated vis-à-vis particular persons or groups; instead, these maps seek to represent the full range of discursive positions found in the data. Thus, they allow multiple and even contradictory positions in the discourse to be represented. Complexities are heterogeneous, and situational analysis offers an improved means of representing them as such.

By revealing positions not articulated in the data these maps help the analyst to see sites of silence. Silences can thus be made to speak. In seeking to be ethically accountable researchers, we need to attempt to specify what seems important but remains unarticulated in the cases we study. Such topics then become directions for further data collection and analysis.

All three kinds of maps are intended as analytic exercises, fresh ways into social science data well

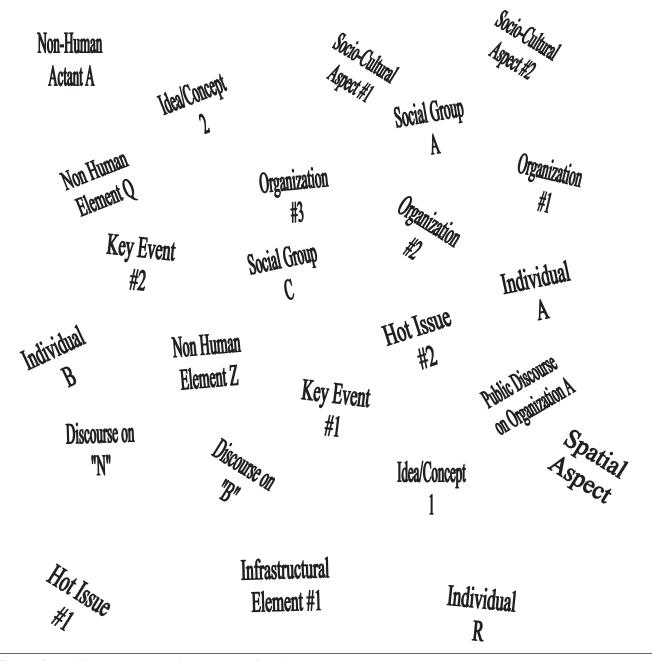


Figure 2 Abstract situational map—messy/working version

Source: From Adele E. Clarke, Situational analysis: Grounded theory after the postmodern turn, p. 88. Thousand Oaks, CA: Sage (2005). Copyright 2005 by Sage. Reprinted by permission.

suited to contemporary studies from solely interview-based to multi-sited. Instead of centering on action (the basic social processes characteristic of grounded theorizing), these maps center on elucidating the key elements and conditions that characterize the case and move toward making structural/conditional elements visible.

Application

Making Situational Maps: From Project Design to Final Analysis

The main map is the situational map, and these should be created from the earliest planning stages of a research project through the final write-up. Early maps are, of course, much more tentative and partial. In making initial maps researchers may draw on their own experiences. Long before a research topic is selected, we notice and store information, impressions, and images about topic areas and issues. Not only are there no tabula rasa researchers, but also they usually come with a lot of baggage. The process of making situational maps includes getting such information, assumptions, and so on, onto the table and, if appropriate, into the maps.

The earliest maps can be used to plan the research design especially in terms of what to collect data *about*: Almost everything the researcher anticipates will be in the situation as laid out on the map. The usefulness of the approach consists in helping the researcher to think systematically through research design and to keep a firm grip on the data. Later maps highlight selected parts of the situational analyses for final products such as presentations and publications and/or for designing interventions in education, social policy, clinical nursing, or medicine.

The "abstract situational map—messy/working version" is depicted in Figure 2. A situational map should include all the analytically pertinent human and nonhuman, material, and symbolic/discursive elements of a particular situation as framed by those in it and by the analyst. The questions are: Who and what are in this situation? Who and what matters in this situation? What elements make a difference in this situation?

The human elements (individuals, groups, organizations, institutions, subcultures, etc.) are, in general, fairly easy to specify. Over time, not all will remain of interest, but all should be specified initially. Nonhuman elements—things of all kinds, from pets to computers to buildings also structurally condition interactions within the situation through their specific agencies, properties, and requirements. They place demands on humans who want to or are forced to deal with them. The researcher also needs to ask what ideas, concepts, discourses, symbols, sites of debate, and cultural "stuff" may matter. Symbolic discursive meanings of elements may be of tremendous analytic significance. Again, researchers need to make sure they are present in the data (through careful data collection) and on the revised situational maps. If they are of no importance, they will eventually drop away.

These maps are intentionally messy and hence very accessible and manipulable. Some people prefer to work in this fashion. Once drafted, they are used in conducting relational analyses, taking each element in turn, thinking about it in relation to the other elements on the map, and specifying the nature of that relationship.

Critical Summary

Situational analysis seeks to regenerate grounded theory to support researchers from the social sciences and humanities professions and beyond in a wide array of qualitative research endeavors. Because the codes and categories of a particular analysis can be generated and applied across the full range of possible data sources, the new mapping approaches are especially useful for multi-site research. They may also be used comparatively across different data sources.

Everything is situated, and situational analyses map and elucidate this facet of postmodern understanding. They make the invisible and inchoate social features of a situation more visible: key elements and their interrelations, social worlds and arenas in which the phenomenon is embedded, and discursive positions taken and not taken on key issues. Situational analysis resituates grounded theory after the postmodern turn to better grasp the discursive as well as action-centered complexities of social life that have become increasingly salient.

Adele E. Clarke

See also Abduction; Discourse Analysis; Grounded Theory; Symbolic Interactionism

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SOCIAL INTERACTION THEORY

Social interaction theory is an all-encompassing term designed to bring together what is known about social interaction. Thus, it harmonizes theories from various schools of thought to create a more in-depth understanding of how social organization and human emotion are intimately linked. Such a holistic understanding of human motivation and action has important implications for case study research. The researcher, privileged with this in-depth understanding, is better able to design studies that probe at both the visible (voiced) and invisible (kept silent) aspects of human culture.

Conceptual Overview and Discussion

It is disappointing that sociology and psychology continue to remain distinct disciplines. Rarely do psychologists and sociologists come together to share their insights with the purpose of creating a viable synthesis, yet the inner world of the individual and the outer social setting in which personal lives are formed are intensely influenced by one another. The sum total of their interrelations form that which, for want of a better word, we call society or culture.

This dualistic view of self and society is in great part due to the neglect of a vital area of social studies: the powerful force of emotions. As recently as the 1960s, the word *emotion* was not included in psychology course titles. This omission has led to theories of human interaction that view individuals and their cultures as an amalgamation of behavioral units; the individual is observed according to his or her actions, while the social setting is evaluated via its supposed structural properties and needs.

Although such behavioral/structural approaches reveal useful facts about learning, cognition, and motivation, and their role in social organization, they gloss over the deep primal emotions without which social interaction would not even be possible. Such partial explanations shortchange our knowledge of human cooperation and conflict.

The implications of this for studies of human settings involving face-to-face interactions are numerous. If we recognize that emotions are involved in most social exchanges we become better able to design studies that not only observe behavior but also probe at the feelings, visible and invisible, that affect those behaviors.

In brief, in addition to understanding "how" human interaction occurs, we understand "why" it occurs in one way and not in another. Most important, we see what makes for harmonious and conflicted exchanges.

The Existing Action-Oriented Paradigm

Our existing understanding of self and society is very much based on our need to understand how individuals learn and apply the norms of their culture. In this paradigm, behavior is seen as "interaction." This action-oriented view of behavior—very much a product of early American pragmatism—is often overwhelmed by observations of behavior within specific situations. Even surveys, interviews, and biographies approach subjects with questions designed to study their attitudes and behaviors rather than their state of heart. Once in a rare while an ethnography will manage to capture the real feeling lives of its subjects.

This overrationalization of human experience and interaction is in part due to the teachings of the American *symbolic interactionism* school. Thinkers of this school focused on the ability of the individual to construct meanings that permitted communications that went beyond the gesturing of animals. How a person was socialized to acquire these communications tools came to take precedence over the effects of such socialization on the feeling life of the person.

Two key thinkers of the symbolic interactionist school, Herbert Mead and Herbert Blumer, discovered that individuals participate actively in the creation of their self/personality by taking on and learning the roles and expectations of the culture that receives them as infants. Mead explained that the developing child soon discovers that she is both the subject ("I") and object ("Me") within a complex field populated by "significant others" such as parents and teachers and the more general influence of other social institutions. Mead understood that the child's consciousness of herself was

dependent on her persona being included in the consciousness of others, yet he minimized the painful compromises made by the child for such inclusion. Writing at a time when American culture idealized conformity and consensus, Mead overlooked how the norms of an achievement-oriented society can overwhelm a child's need for unconditional love and acceptance.

Mead's explanations were further developed by his follower, Herbert Blumer. He specified that the meanings constructed by individuals were situation specific. How individuals defined a situation had a direct influence on interaction. Blumer's insights helped explain how individuals could possess considerable social agency and influence the course of social change by continually altering the manner in which they viewed situations. Despite this seminal contribution, Blumer left untouched the unbalanced power ratios that would make one individual give in to another's view of a situation despite his own feelings indicating a contrary explanation.

Subsequent explanations of interaction did provide small opportunities for the inclusion of emotions in social studies. The works of Charles Horton Cooley and Erving Goffman, in particular, addressed how the emotional reactions of social actors influenced their interactions. Cooley specified that every individual navigated through the social field, never sure of what others thought of her; all the person could do was imagine how others saw her. Cooley's observation left room for some speculation on why a given individual would think others are thinking the worst of them while another might remain blissfully ignorant of criticism.

Goffman also came close to discovering the workings of the deep well of emotion that energizes human interaction. In his now-seminal work, *The Presentation of Self in Everyday Life*, he used a dramaturgical model to explain how identities are formed through interactions that involve emotions of pride and embarrassment. He defined interactions as performances involving social actors eager to leave the right impressions on an audience, which is in turn entrusted to provide the actors with feedback regarding their performance. A performance that was discredited by the audience made the actor lose face and fall into an embarrassing state. Such performance failures then required reparatory work designed to save face.

The performer then would have to present to the audience again and secure its trust or rationalize to herself that the audience had misunderstood or not appreciated her effort.

Like his predecessors, Goffman focused on how individuals live out roles. Although he recognized that humans have a need to feel validated by others, he did not probe deeply into the pain they experience when such validation is not forthcoming. He might have arrived at some groundbreaking data had he probed at exactly what is happening within a person's feeling apparatus during moments of embarrassment. Unfortunately, he accepted embarrassment as a "whole" emotion and, like his predecessors, remained unaware that emotions observed in interrelations are often further rooted in deeper primal feelings.

Toward a New Paradigm of the Feeling Human

Shifts in conceptions of self and society occur when people are ready for them. For example, it took a malcontent generation (the Baby Boomers of the 1960s) to champion free emotional expression. The sayings "Do your own thing" and "Let it all hang out" were antirepressive views. Since then, Western cultures have considerably eased their restraints on emotions, and it has become easier to study them.

One important work by Jonathan H. Turner has provided an extensive discussion of primary versus socially derived emotions. His work indicates that whereas certain emotions are socially constructed, others are universal–absolute and hard wired into the human neurological apparatus. Although they can be repressed, they continue to exert influence.

Thomas Scheff has recognized the role of repression in conflict. In a series of studies of the shame response, he has concluded that shame is the "master emotion." He observed that shame is so disconcerting that its sufferer is apt to conceal it immediately. Yet Scheff noted that when shame remains unacknowledged it turns into hostility, the stuff of "infernal conflict." Even Scheff did not probe deeper to discover whether more primal emotions may underlie the shame response.

So far, sociology and psychology have developed a comprehensive understanding of roles and learned behaviors, yet we still lack an understanding of why it is that a social interaction can suddenly become conflicted or go on endlessly with pleasantries that do not at all represent the true feelings of participants. For example, why is it that exchanges between speakers can degenerate due to a lack of reciprocity of goodwill? Why is one person's pride so easily hurt while another prides herself on a carefully developed thick skin? Why do some become angry if ignored while others pray not to be noticed in a group? And why do some sink into devastating depression at the termination of a relationship?

The answers to such questions have been provided since 1970 by Arthur Janov, as a result of his work with his psychotherapy clients. Much of his insights emanate from the comments of clients of his who have managed to understand themselves better than ever before. Janov discovered that his clients were suffering from repressed pain. The release of this emotional pain in connection to the events or people who caused it seemed to have a liberating and curative effect. Janov subjected his findings to the most rigorous scientific measures, but it is the commentary of the clients that instructs us the most. They reported that they went back to their lives with considerably more self-confidence, an absence of the desire to be confrontational in social interactions, and a near-total lack of the type of narcissism so often found in interrelations. Having felt their own needs, they were able to empathize with the feelings of others. Moreover, they were able to know that the basic need they had experienced as part of their feeling reliving of their life was very simple: to be unconditionally loved and appreciated for being alive (free from the mandates of achievement and role playing). No need stood above that except the need for food and shelter.

Janov concluded in a series of books that the growing child, who needs love, support, and validation very often encounters an expedient world more interested in teaching her the roles and norms of society. Janov reminds us that life is dialectical: Repression leads to its opposite; repressed hurt turns into anger, which then turns into explosive violence; repressed humiliation turns into a bullying personality or a person saddled with an inordinate search for recognition and honorifics. The deprived person continuously attempts to obtain in present interactions that which was not received in key earlier interactions.

Critical Summary

If it is true that human interaction is governed and affected by the unresolved pain of its participants, then we cannot glibly speak of "social norms" as normality. They might just as easily be abnormalities if their achievement is dependent on the twisting of the individual's real emotional needs. Although the culture may give off the impression that it is fully functional, nothing ensures that it is inhabited by contented individuals; instead, it runs the risk of having important social interactions contaminated by the emotional baggage of its participants.

This inability to completely live in the present with no emotional debt to the past affects relations in families; the quality of friendship circles; civility standards in educational systems; and, very importantly, productivity in work environments.

Recognizing these troublesome truths opens up very valuable pathways for case studies of interaction in a host of settings: management (abuses of power and bullying, lack of confidence, disloyalty and exaggerated loyalty), families (damagingly loose or stiflingly tight social bonds, addiction, violence, spousal abuse), and educational institutions (incivility in classrooms, poor performance, violence, cruel cliques, bullying and shunning).

How can our research proceed in a manner that is reliable and valid despite this new information? In principle, the researcher will have to not only keep a keen eye on behavior and the reasons given by its subjects but also probe at the "emotional why" of the interaction in question.

Arthur Janov once observed that "The angry man is the unloved man." We might do well to consider how social interaction settings can provide the support required to make members less vulnerable to this painful reality.

Benet Davetian

See also Agency; Autobiography; Conversation Analysis; Self-Presentation; Symbolic Interactionism

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SOCIALIST FEMINISM

Socialist feminism usually refers to the fourth branch of the classic four theories of second-wave feminism. An attempt to synthesize the insights of the other feminist theories, starting with radical and Marxist feminisms, it is most commonly identified as a dual-systems approach that links gender and class analyses together. This perspective is a useful one for case study researchers to be aware of in terms of its historical place within feminist theory and methodology and its emphasis on the ways in which systemic effects of economics impact gender analyses.

Conceptual Overview and Discussion

The term *socialist feminism* has sometimes been used in a descriptive sense to refer to any feminist work from the 19th century onward that is informed by the work of Karl Marx and Friedrich Engels and that emphasizes issues of class, economics, and labor as central components of both women's oppression and the key to their liberation. As such, it is often used interchangeably

with Marxist feminism, materialist feminism, and feminist materialism, although, when defined more narrowly, it is set in opposition to these approaches. All of these perspectives are rooted in the assumption that women's oppression is caused not by their individual situations but by the social, political, and economic structures in which they live. To take into account women's lives, they expand upon typical Marxist analyses of the realm of production to that of reproduction, examining how women are oppressed in their roles as mothers, wives, and caretakers and how their sexuality is commodified.

In the early 1970s, some British and North American feminists, including Juliet Mitchell and Barbara Ehrenreich, began using the term *socialist feminism* as a radical critique of Marxist feminism's gender-neutral concept of class and as a Marxist critique of radical feminism's essentializing and ahistorical concept of gender. However, from the beginning the focus of socialist feminism expanded beyond a dual-systems approach to include multiple perspectives, including psychoanalytic, antiheterosexist, antiracist, global, and transnational feminisms.

Socialist feminism has continually been challenged by questions regarding the relationship of the terms in its dual system. Which is more important, gender or class, patriarchy or capitalism? And, which came first, gender or class, patriarchy or capitalism? Do the additional perspectives constitute new "systems," or is there a hierarchy in place with gender and class as the most important and the others as supplemental? Can all of the terms ever be valued equally? Some theorists attempted to resolve these problems by finding unity among the concepts. Iris Marion Young suggested that the concept of division of labor incorporated an analysis of both gender and class while also replacing the gender-neutral concept of class with one that took into account women's oppression with respect to production. Alison Jaggar suggested that the concept of alienation linked women's oppression across their multiple roles in

The feminist methodology of standpoint theory, developed by Sandra Harding, Dorothy Smith, and Nancy Hartsock, is considered to be located within socialist feminism. Standpoint theory argues that women's unique position in society provides them

with a grounding for truth claims as well as with a method for analyzing reality.

In the mid-1980s, two serious challenges to socialist feminism came from antiracist feminists and poststructuralist/postmodern feminists, leading to the common current assumption that socialist feminism is no longer a viable position. Proponents of black feminism, specifically, criticized socialist feminism for its supposed inclusion of race analyses when a hierarchy among concerns continued, with racialissues still subordinated. Poststructuralist/ postmodern feminists were critical of socialist feminism's approach to language and its failure to take into account the discursively produced nature of subjects. They also criticized socialist feminism's epistemological assumptions regarding the goal of a totalizing unified theory when, according to their perspective, only fragmentary and provisional truths are possible.

Donna Haraway's A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s (1985) stands out as an example that tried to renew socialist feminism by marrying it with a postmodern approach to language and epistemology. Not only does she root her work in racial analyses, but she also provides the concept of "situated knowledges" as a response to some of the problems of standpoint theory. Some scholars point to materialist feminism, in particular as articulated by Rosemary Hennessy), as a continuation of the socialist feminist project that incorporates postmodern discourse analysis. More recently, in a 2002 edited collection, Nancy Holmstrom made the argument that there is an even greater need for the insights of socialist feminism because of ever-expanding markets and globalization and the economic effects on women's lives across the world. In fact, much work by postcolonial, global, and transnational feminists has developed out of the insights and critique of socialist feminism.

Application

Socialist feminism has been employed by researchers in many fields who conduct or make use of case studies in their work, ranging from medicine, education, and development work, to sociology, media studies, technology studies, and literary criticism.

Chandra Mohanty's chapter, "Women Workers and Capitalist Scripts: Ideologies of Domination,

Common Interests and the Politics of Solidarity" in Holmstrom's volume, is a good example of an analysis that concentrates on the interconnections of class and gender that also takes into account race and a transnational context.

Mohanty compares case studies emerging from two very different contexts: (1) a study of lacemakers in Narsapur, India, conducted by Maria Mies (1982), and (2) examinations of electronics workers in Silicon Valley, California, conducted by Naomi Katz and David Kemnitzer (1983) and Karen Hossfeld (1990). She also refers to Sallie Westwood and Parminder Bhachu's collection of essays on black and minority female workers in Britain.

In India, Mohanty argues, the domestication of women leads to the invisibility of lacemaking as work; in Silicon Valley the electronic work is visible but is considered supplementary work, even though it is not part-time. In both contexts, the heterosexualization of women's work, whereby the women are always defined in relation to men and marriage helps lead to these definitions of work. Both groups of women are defined primarily as mothers and homemakers, whereas men are seen as the real breadwinners. What ties these two case studies together, Mohanty argues, is the production of an ideology around "third world women workers." For example, there are assumptions that unskilled work is easy and that third-world women are docile, are satisfied with low wages, and have a tolerance for tedious work.

Mohanty is clear about her intent in this project: She uses these case studies from very different parts of the world and takes pains to underline the specificities of the situations in these different contexts. However, her larger project is informed by socialist feminism's desire to look for common elements of both oppression and liberation. She argues for the need to understand commonalities of experiences that could form a basis for solidarity and organization of third-world women workers transnationally.

In the definition and redefinition of women's work in contemporary global capitalism, "homework" (i.e., work done in and around the home) is a form of women's work that functions to repress third-world women in significant ways and prevents them from working with each other in solidarity. Mohanty argues for the need for political

unity among third-world women workers because of this commonality while maintaining their importance differences.

Critical Summary

In the 1970s, socialist feminism provided a crucial critique of the feminism of its day and its attempt to theorize multiple and complex causes that lead to women's oppression, especially the interrelations between gender and economic issues. In this sense, it can be considered to have paved the way for current feminist work that is rooted in theories of intersectionality. However, socialist feminism's approach to multiplicity was challenged in the 1980s by antiracist critiques that questioned where race concerns fell in an inevitable hierarchy of concerns and by a postmodern/poststructuralist questioning of its theories of language and its desire for a unified and totalizing theory.

Socialist feminism continues to provide an important grounding for current feminist analyses, especially within the context of global capitalism. It sees itself as an important contrast to postmodern feminism, which it believes is too engaged in abstractions and issues of language. It reminds researchers not to ignore material lives and stresses the importance of historical and political analyses. Work such as Mohanty's demonstrates the best of socialist feminism and furthers the field in its foregrounding of issues of race, sexuality, and global location. Socialist feminism also stresses an aim beyond analysis: Its aim has always been about liberation and the end of oppression.

Margaret E. Toye

See also Case Study Research in Feminism; Class Analysis; Gendering; Historical Materialism; Liberal Feminism; Patriarchy; Postcolonialism; Postmodernism; Poststructuralist Feminism; Radical Feminism; Standpoint Analysis

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SOCIALLY DISTRIBUTED KNOWLEDGE

Some researchers, theorists, and practitioners approach learning and knowing as social phenomena that involve more than internal cognitive functioning. From this perspective, knowledge is considered socially distributed; that is, knowledge is not contained solely inside an individual's mind; instead, it is distributed or shared across mind, body, available tools and resources, other people, activities, and other situational factors. Case study research approaches are sensitive to the situational factors associated with socially distributed knowledge and therefore provide an appropriate methodological approach for those who consider knowledge to be socially distributed.

Conceptual Overview and Discussion

Conceptualizing learning and knowing as socially distributed is an epistemological perspective or theory about how learning and knowing occur. This perspective emphasizes that people interact and learn in social settings and that part of what they learn is social content. It also recognizes that even when individuals work or study independently they interact with books and tools that are socially located. Socially distributed knowledge is not a special class of knowledge, and it is not limited to knowledge that is developed or deployed by a group of people. From this epistemological perspective, all learning and knowing are socially distributed, and it is impossible to understand any learning or knowing without

addressing social aspects of that learning or knowing.

Conceptions about socially distributed knowledge can be considered in relation to three interrelated metaphors: (1) distributed, (2) situated, and (3) positioned.

Distributed implies that knowledge does not reside in individual minds but is disbursed throughout the situation in which the individual knower is located. A feature of the physical environment prompts the individual to recall a relevant technique to adopt in the specific situation. A suggestion from a tutor or work partner becomes incorporated into a task solution. Some of the cognitive work is offloaded onto a tool, such as a calculator or measuring cup, such that the individual and the tool work together as a symbiotic system to enact knowledge. Each of these examples illustrates ways that knowledge is distributed between an individual and the situation in which she or he is placed.

Situated implies that knowledge is developed and deployed within physically and socially defined situations. Research has shown that people perform differently in different situations; practices engaged in one situation cannot be expected to look like practices engaged in a different situation. The physical setting contributes to and constitutes an important structuring device for learners' practices. Available tools and resources contribute to the learners' practices, but the learner determines which objects, events, or people are recognized as tools or resources. Components of the physical and social situation not only stimulate and guide knowledge development and deployment but also become the vehicles for thought.

Positioned implies that knowledge is historically, culturally, and politically located. Historical, cultural, and political factors influence the knowledge to which an individual has access and the practices and beliefs that are recognized or valued as knowledge within his or her community. For example, there are differences in the information that is presented as accepted knowledge by a biology professor, a geography professor, an Aboriginal elder, an environmental activist, or a forester. No one of these individuals is more accurate or knowledgeable than the others. Each holds a wealth of knowledge that is embedded, partial, and mediated. Each provides rich understandings from a particular position or perspective.

The metaphors distributed, situated, and positioned emphasize the ways that knowledge is flexible, partial, and situation dependent. Knowledge cannot be understood distinct from its sociocultural context.

Application

Case study research approaches are sensitive to the ways that practices are distributed, situated, and positioned. Many published case studies are written from the perspective of socially distributed knowledge. For example, consider the work of Rosemary Reilly or Laura Méndez, Pilar Lacasa, and Eugene Matusov. An illustrative case drawn from a PhD student conducting research in plant biology helps to make sense of the distributed, situated, and positioned metaphors and the underlying epistemological perspective of socially distributed knowledge. (This example is discussed in Michelle McGinn's case study of statistical problem solving.)

Rhonda is a biology student conducting research that involves comparing pesticide effectiveness over time on five species of trees. She worked with her faculty supervisor to design the research project, drawing upon and extending her understandings of plant biology, research design, and statistical analyses. She planted several trees in a field setting and has been conducting various measurements on a regular basis. As the research unfolds, she schedules a series of sessions with the statistical consulting center on her university campus to help her plan subsequent data collection and analysis steps. During these sessions she meets with Ian, who is the director of the center, and one or more statistics graduate students who serve as interns in the center.

Rhonda has learned about plant biology, research design, and statistical analyses through coursework in her present and previous degree programs. She has read numerous books and journal articles. She has written various course papers and conducted small experiments. Accomplishing these tasks has allowed her to develop and to demonstrate knowledge about relevant topics for her dissertation research. Her knowledge is captured in what she has done, not just in neuronal pathways inside her skull.

Rhonda maintains a research journal to serve as a repository for her understandings, questions, and

comments related to her research. It is a space in which to document what she understands and what she learns, as well as a space for her to create understandings by writing. The notebook serves as a record of her thinking, and it serves as a vehicle for her thinking. During consulting sessions Ian, the lead statistical consultant, regularly sketches diagrams, tables, and formulas on loose sheets of paper, which Rhonda tucks into the pages of her research journal. The notes, whether written by Rhonda or Ian, provide cultural scaffolds during and after the consulting sessions that Rhonda can use as she makes moment-by-moment decisions in the field about how to proceed with her research.

Rhonda's supervisor, the statistical consultants (Ian and the student interns), and her classmates are all important social resources to help her understand and implement important biological, methodological, and statistical knowledge. During consulting sessions Rhonda reports on what she has accomplished and asks questions about what to do next. Ian offers mini-lessons on statistical topics such as degrees of freedom and correlation coefficients, and he records procedure statements to which Rhonda can refer when she tries to implement this information at her research field site, in meetings with her supervisor, and in the pages of her yet-to-be written dissertation.

At one meeting, Rhonda asks the statistical consultants how many trees she needs to sample to assess plant growth. As she explains, she will need to measure root mass (i.e., the mass of the root system) by physically removing the trees with the entire root system intact, then measuring the fresh weight of each root system, drying it in an oven, and remeasuring the dry weight. She needs to sample a sufficient number of trees to perform requisite statistical computations while leaving sufficient numbers of trees in the field site for the second year of her study. Ian immediately refers to standard sample size calculations based upon the variability of the measure and the researchers' willingness to handle errors, but this does not provide an adequate answer to Rhonda's sample size problem. Physically, Rhonda is too small to be able to dig up the trees; she is literally not heavy enough to budge the soil. As an international student, she has no additional funds to pay for assistance, and she can rely upon her husband's assistance only. Even with his assistance, they are physically unable to dig up the largest trees (over 5 meters high), so those measures are unavailable. Through conversation with the statistical consultants, Rhonda decides that she and her husband need to complete all measures for each individual species in one day to avoid introducing confounds, which means that they can physically process no more than two or three trees of each species. Although this might not be an ideal sample size and is not the number that would result from following the sample size calculation in a statistics textbook, it is a manageable number and will probably be sufficient to provide some sense of the differences across species.

Rhonda's knowledge about biology, statistics, and research design is embedded in her actions and interactions in her field site and other situations. Conversations and notes in her research journal contribute to and represent her knowledge. Her field site informs what she learns, what she knows, and how she proceeds with her research.

As Rhonda's case illustrates, knowledge can be productively viewed as a socially distributed phenomenon. Knowledge cannot be separated from the situation in which it develops and is demonstrated. People take advantage of tools, resources, and people in their physical setting and their wider milieu as they engage cognitive processing. Life circumstances and sociopolitical contexts influence knowledge development and dissemination. These are all components of epistemological perspectives that emphasize socially distributed knowledge.

Critical Summary

Researchers who adopt epistemological perspectives based upon socially distributed knowledge need methodological approaches that allow them to investigate situational factors and to seek evidence from multiple social actors in a setting. Case study research is one such approach, because it involves considering multiple sources of evidence and is well attuned to investigating social mechanisms and social interactions. Researchers would be well advised, however, to consider the criticisms raised by scholars such as John Anderson, Lynne Reder, and Herbert Simon, who argue that some applications of socially distributed knowledge overstate the limits of this epistemological perspective, undermining sound theoretical and empirical findings from other epistemological perspectives. It is important to note that scholars need to ensure that they do not overlook the individual contributions and knowledge development possible within the context of socially distributed knowledge.

Michelle K. McGinn

See also Community of Practice; Epistemology; Macrolevel Social Mechanisms; Multiple Sources of Evidence; Ontology; Social Interaction Theory

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Spiral Case Study

The spiral case study is a strategy of qualitative research aiming at description and interpretation of the social world seen as a seamless web of connections in action. It was born within practice-based studies such as those presented in the collective book edited by Davide Nicolini, Silvia Gherardi, and Dvora Yanow, and it is based on a conception of the social as a texture of interconnected practices.

Conceptual Overview and Discussion

Going to the cinema is an example of a familiar social practice, one that we perform with greater or lesser frequency. Let us use Harold Garfinkel's technique to defamiliarize this practice by asking ourselves: When does the practice "going to the cinema" begin? When we enter the cinema, when we buy the ticket, when we arrange with our best friend to go and see the film? Does it finish with watching the film, or is talking about the film afterward over a beer, or some time later with a group of friends, part of the practice of "going to the cinema"? The pleasure of going to the cinema continues and is renewed through discussion of films that we have seen. Going to the cinema is therefore connected with other sociability practices that form the texture of being together and link with identity practices to show others that we are abreast of the facts of the world. Talking about the films that we have loved or hated, discussing the reasons and the aesthetic categories that account for our cinematic tastes, associating ourselves ideally or materially with others who express appreciation similar to our own, becoming collectors of a certain genre of film, and calling ourselves "amateurs" of a cinematic genre are all activities that we recognize as being part of the same social practice. This social practice is founded on a set of activities, on the processing of an individual aesthetic experience, on its discursive sharing within social settings—and therefore on the development of aesthetic categories that enable its communication. It produces specific subjectivities (e.g., "fans of police thrillers") within a broader community of "film buffs." We can continue our reasoning on the institutional and organizational level to stress how film clubs are organized, film libraries are formed, and university courses on cinematography are institutionalized. From the individual aesthetic experience to the institutionalization of cinematographic representation as a socially legitimated form of production of knowledge about society there extends a field of practices connected together and sustained by connections in action.

Application

A spiral case study may be developed from this example: We may start with a case study focused on individual strategies of practicing going to the cinema, then shift the focus on the organizational implications of people going to the cinema, then shift again to the production/consumption industry. Perhaps we wish to finish with a focus on the institutionalization of the values and policies supporting the individual practices of going to the cinema.

Whereas traditional sociology treats this process as a matter of social levels—individual, collective, organizational, interorganizational, and institutional—the aim of a spiral case study is to understand how all of them are connected in action and how a texture of practices link individuals and institutions at the same time and within the same practice. Therefore, we can define the spiral case study as a research strategy that focuses on understanding the dynamics present within interconnected settings. It follows an understanding of case study research as a way of organizing social data so as to preserve the *unitary character* of the social object being studied, as Kathleen Eisenhardt states.

Going to the cinema is an example of a mundane practice. Let us now consider a work and organizational practice that highlights that every social and work practice is sustained by the normative and aesthetic attachment that its participants express and collectively elaborate while they work.

Going to conferences is an example of such a practice, and it is so well known that it is the topic of a 1984 novel by David Lodge. Academics go to conferences and enact a widely known script. The work and organizational practice of that community of practitioners, that "invisible college," involves not only activities such as traveling, presenting papers, and listening to other colleagues' papers but also comparing conferences, criticizing them, and talking about who was present and who was absent. Talking about the practice, discussing what makes a good conference and what makes a bad one, is an integral part of the practice, not just

an accessory to it. Going to conferences is indeed not only a part of the academic professional practice, oriented to the transmission, diffusion, and institutionalization of knowledge, but it is also part of "making society," celebrating the competence of practitioners, novices, old-timers, those who are influential or otherwise, and those who are knowledgeable and those who are less so.

In a way similar to going to the cinema, attending the conferences of the scientific community to which academics belong is an occasion to express and refine the sense of membership within one of the many currents or schools of thought that traverse every scientific discipline and to take an active part in it by organizing conferences similar to those that interest us, by launching a journal that becomes a forum for a certain mode of understanding and practicing the discipline, by promoting alliances and groupings whose purpose is not only to acquire power and influence but also to express a certain taste for a certain way of perceiving, appreciating, and practicing. In other words, this certain way of practicing and socially sustaining a practice is learned/taught during participation in the practice, and it is sustained both by instrumental judgments concerning the effectiveness and the efficiency of one way to practice compared with another and by ethical and aesthetic judgments. All together, these judgments form the criteria of normative accountability, which are mobilized within every practice to determine its correctness/incorrectness. The normative accountability of practices is produced and reproduced as individual (and collective) practices are repeated in accordance with the practitioners' standards that are socially supported and contested as the practice unfolds.

The image of the spiral case study is intended to convey that although the case study is conceived as unitary, it is made up of numerous case studies designed to bring out the connection among them woven by social action. The questions within a spiral case study research design are therefore how the texture of a field of practices can be investigated empirically: how the achievement of connectedness in action can be analyzed, together with how practical knowledge is enacted and circulates in a field of practices.

To conduct empirical investigations of the qualities of texture and the processes of its weaving, we

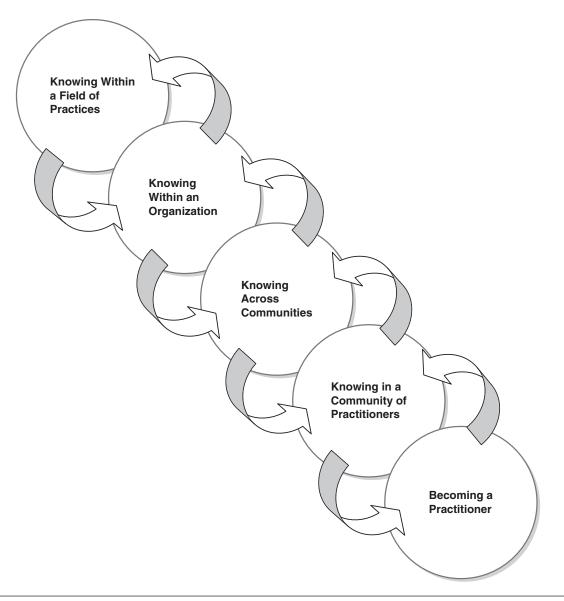


Figure I A graphic representation of a spiral case study

must define and circumscribe some units of analysis within a seamless web. The units of analysis are not pregiven; neither do they rest on any natural distinction: They are arbitrary choices made by the researcher on the basis of a theoretical scheme. As an example, we can look at Gherardi's research design for studying safety in the construction industry as a social practice, as the aggregate result of individual behaviors, the collective practices of various occupational groups and organizational practices and those of various organizations and institutions that cooperate and clash as they affirm safety standards, norms, and cultures. The subject

of the spiral case study is therefore the local texture of individual, group, organizational, and institutional practices that interweave, dissolve, and become institutionalized. The image is that of a spotlight trained on the scene of an action (becoming a practitioner in the construction industry), which then moves to the next one, as described in the following hypothetical scenario.

A young assistant building site manager begins his new job by flanking the site foreman. How does he learn safety, and how does the community of practices that he is now joining teach him safety? An ethnography of the work-entry process recounts the development of a knowledge base and an occupational identity as well as the practical acquisition of a situated curriculum.

Several communities of practice perform interdependent tasks in the same construction company and are therefore coresponsible for the production of safety. How do the engineers, the site foremen, and the project managers explain the causes of accidents and how to prevent them? A causal analysis of their accounts sheds light on practical reasoning processes, and an analysis of their discursive practices shows that as diverse communities "talking in practice" they sustain their respective identities and socialize each other into their respective logics of action.

Accidents represent breakdowns in practices; they are moments when quotidian "normality" disintegrates and must be reconstructed. Can these moments occasion organizational learning? How is the texture of a field of practices repaired? Comparative analysis of the organizational processes enacted after a serious accident was the methodology of this spotlight in the spiral case study.

Within a circumscribed territory, construction companies and institutions competent in safety practices encounter each other and come into conflict. The interactions in which they negotiate their power relations give rise to a local safety culture. How are interorganizational relations woven together, and how is the learning network constructed? Qualitative network analysis answers the two questions.

These five units of analysis (see Figure 1) are therefore five points of observation: (1) individual, (2) collective, (3) organizational, (4) interorganizational, and (5) societal. However, they focus on the fact that the field of safety practices is a single seamless texture and that all the levels of reality and all the different loci of social identity are interwoven and copresent in becoming an assistant site manager.

Critical Summary

The spiral case study thus may be seen as a heuristic device for analysis and interpretation that unpacks the elements copresent within a field of practices. If we imagine the spiral as a spring, we can say that its extension is followed by its

compression and that when it is extended its interstices can be examined, given that stretching a spring amplifies its spaces of connection in action.

Silvia Gherardi

See also Actor-Network Theory; Knowledge Production; Practice-Oriented Research

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STANDPOINT ANALYSIS

Developed primarily by social scientists, especially feminist sociologists and political theorists, standpoint analysis is a reflective tool and strategy for developing in-depth social inquiry and knowledge. It is premised on the belief that one's social location, as researcher and/or research subject, is the starting or entry point of analysis. The data are derived from the shared perspectives of everyday people, in particular those from marginalized groups. Standpoint analysis takes shared political and social experiences and develops an account of these shared experiences; at the same time, it works out an approach to politics from the standpoint of those who experience marginalization and are ignored by dominant social narratives.

Conceptual Overview and Discussion

Standpoint analysis lends itself to case study research because it is combines the process of reflection with self-critical analysis to produce indepth and oppositional accounts of social phenomena. Considering that case study privileges in-depth

inquiry and understanding, it is aligned with and derives much of its rationale and methods from ethnography and its constituent theoretical discourses, such as standpoint.

In societies stratified by unequal power relations, research relationships occur in an environment of interpersonal and social power. Standpoint analysis requires researchers to understand and take into account this power relationship, their power in the research process, and their position as producers of knowledge. Moreover, standpoint calls for researchers to explore their own subjective position, be more aware of the role they play in the collection of the research data, and appreciate the implications on the group or groups participating in the research. Sometimes, the researcher's standpoint is also taken up as data. Thus, standpoint analysis increases the importance of questions about how power interacts with authority to influence who is seen as a legitimate creator of knowledge and what kind of knowledge is created.

Critical race and feminist scholars have been central in this call to question power relations, in particular between researcher and research subject. Feminists have criticized mainstream social science research, arguing that social science in general is detached (in the name of objectivity) from the daily life experiences of the people whom they study. Furthermore, traditional science and social science research has been defined by androcentrism (male centeredness). Standpoint analysis was developed and theorized to reveal (and change) the fact that traditional social science research reflected the biases and interest of male (white) researchers.

Although its origins are connected to a variety of political struggles, standpoint analysis has become synonymous with feminist theory, for which it outlines a method for constructing effectual knowledge from the insights of women's experience. Nancy Hartsock, Dorothy Smith, Patricia Hill Collins, and Sandra Harding have worked to develop this approach. These feminists extend some of the early insights about consciousness that emerged from Marxist/socialist and critical race feminist theories and the wider conversations about identity politics.

In the literature on standpoint analysis a variety of contentions and foci have emerged. Some standpoint theorists, for example, argue that researchers should not study those people over whom they have social advantage; therefore, White people should not research Black people, men should not study women, and so on. Other theorists argue that the researcher's social location does not have to be similar to the research participant's but rather that the data be generated from the standpoint of the research participant. Although the theoretical particularities of standpoint may vary among theorists, it can generally be argued that standpoint has two connected themes:

- 1. Positionality. This theme of standpoint sees that every person is located within a particular position within a community and that this position influences how they understand, evaluate, and experience the world. In this sense, standpoint is a place from which people view the world—both participant and researcher alike. The researcher's position influences the questions he or she asks, whom he or she approaches for case study, and how he or she interprets the data. The research participants' position influences how they approach the researcher and how they interpret and answer the questions being asked. Positionality is also influenced by social group membership (race, class, gender, etc.), and therefore standpoints are partial. For example, White women's standpoint would be different from Black women's standpoint. It is vital to understand the positionality of the researcher and research participant involved, because it will affect the outcome of the case study.
- 2. Achievement. This theme sees standpoint as a socially produced process, an achievement rather than a given. One does not simply see the world from a particular vantage point. A standpoint is produced through interaction and engagement within communities and through social relations. In this way, the research participants move beyond being resources for information to individuals and members of a community engaged in a process and interaction aimed at illuminating the complexity of the human experience.

At the heart of standpoint analysis is the insistence that all data and knowledge claims produced by researchers and research subject are socially located and situated; therefore, they reflect the experiences, values, and activities of the researcher and research subject. Furthermore, different situations

result in different knowledges, but the knowledge of the oppressed and marginalized is most relevant because they provide an insight into power relations that the powerful deny exists. The marginalized provide the entry point of analysis that challenge mainstream understandings of social issues. Thus, standpoint analysis provides a guide to how locations of marginalization can be turned into epistemological and political positions of strength.

This analytic guide means the research subject's spoken experience, or what is called oral testimony, is a site of inquiry—a place from which data are provided, generated, and revealed. Such data become the resource for analyzing social issues. This oral testimony, however, is not treated as raw data. It is understood as organized through various sites of power, which are not necessarily visible to individual research participants and, yet, shape their perceptions, interpretations, and even behavior. Thus, data is understood as socially constructed knowledge that is shaped by social structure and relations. In view of this, the researcher cannot take up the data unproblematically. They must apply theoretical rigor to the data and critically assess their biases and assumptions.

Application

An example of standpoint analysis is Ruth Frankenberg's 1993 study on Whiteness. Through life history interviews with 30 White American women, Frankenberg examines how White privilege is reproduced through the norms and practices of White women's everyday life. Her work is premised on several principles of standpoint: (a) understanding that, as researcher, she acts within the social relations and subject positions that she seeks to change; (b) identity arises out of experience; and (c) the oppressed "see" systems of domination more clearly than the privileged. Although Frankenberg shares the feminist commitment to examine women's lives as a site for analyzing society, she recognizes the limitations of such an approach. She argues that daily life, even if it is from the perspective of the oppressed, can be theoretically comprehended only by relating it to larger social processes. For Frankenberg, this meant drawing on the historical analysis of racism and colonialism in the United States. She reminds us of

Black women's critique of the White ethnocentrism that marked much of White feminism, and her work is an attempt to address this position. She does this by examining White women's lives through a racial lens, to make us aware of how Whiteness is experienced but an unacknowledged aspect of racial privilege. To get at this aspect of Whiteness, Frankenberg strategically involves herself in the interviewing process, sharing aspects of her own life and her own reflections about racism in discussions where unacknowledged aspects of racial privilege may cause silence. She engages in the interview process in order to increase empathy and understanding and avoid coming across as a disinterested observer.

Critical Summary

In most versions of standpoint analysis there are certain social locations from which it is possible to develop better understandings for case study research. Marxist theory generally privileges the standpoint of an undifferentiated working class. In feminist standpoint theory epistemic privilege is often accorded to the standpoint of women but, as critical race theorists have argued, men and women are diversely located in systems organized around race, class, sexuality, and other relations of domination and, therefore, there are multiple standpoints.

Katerina Deliovsky

See also Ethnography; Institutional Ethnography; Narrative Analysis; Reflexivity

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STATISTICAL ANALYSIS

Statistical analysis of case data allows researchers to explain quantitative findings in the case study and, in some instances, make inferences about the population from which the case is drawn. Descriptive techniques help present the collected information in summary fashion, such as tables, graphs, and central tendency indices, or to reflect embedded patterns within data. Inferential techniques enable researchers to estimate one or more characteristics of the larger population from which the case was drawn and test specific hypotheses.

Conceptual Overview and Discussion

Quantitative case studies contain numerical data that must undergo further analysis to form conclusions. A large proportion of such case studies employ descriptive techniques. Because inferential techniques require specific types of data, these are less frequently seen, especially in one-shot case studies.

Descriptive Techniques

The measurement level used in a case study determines the choice of data analytic technique. In case studies employing a nominal level of measurement, which uses numbers simply to classify respondents into groups (e.g., male or female), frequency and cross-tabulation tables are most common. Ordinal measurements reflect inherent rank ordering of observed phenomena (e.g., work performance of five employees) and use the mean, median, and mode to indicate rank differences. The *mean* denotes the average value of a distribution, whereas the *median* and *mode* represent the middlemost and typical values in the same distribution, respectively. When multiple observations on two or more variables are available. Spearman rank correlation coefficients can also be computed. A value of 1 indicates perfect agreement between ranks of two variables, such as teacher effectiveness and student performance; a value of -1 indicates that the ranks of one variable are in exactly the opposite order as the ranks of the other; and a value of near zero indicates that the two variables are independent.

With *interval-level* measurement the numbers take on new meaning. Typically, ratings on a scale, such as "below average" (1), "average" (2), and "above average" (3), are employed here. In this instance, order and quality of magnitude of the differences in the data can be computed along with measures of central tendency such as the mean, median, and mode. However, interval scales do not have an absolute zero point; hence, we cannot say that a teacher who earned a score of 2 is twice as good as another who earned a score of 1.

An interval scale with an absolute zero becomes a *ratio scale* and permits the researcher to perform various mathematical operations (add, subtract, multiply, and divide).

Frequency Distributions

A popular approach to summarize and analyze quantitative information is the frequency distribution. For example, in a case study on a school, teachers' attitudes toward mandatory health food outlets in schools can be represented as a frequency distribution that shows the number of teachers (or frequencies) who have a particular attitude (favorable, unfavorable, no opinion). Problems emerge when category definitions are ambiguous or not mutually exclusive. Are there degrees of favorable responses to the question posed to the respondents? If someone favors both health food and fast food in the school, is his or her response comparable to that of another who gave the response "no opinion"? When precise definitions of each category are absent, frequency distributions of observations become difficult.

Variance Analysis

When observed values show marked differences, computation of *variance* becomes important. In this instance, a single index, such as a mean or median, is incapable of validly summarizing the available information. For example, consider the test scores of three students in each of three classes: Class A = 49, 50, 51; Class B = 40, 50, 60;

Class C = 10, 50, 90. Although the average and median scores in each class are identical, there is vast difference in the class performance. In such instances, additional measures of dispersion are useful. The *range* scales the distance between the highest and lowest score in a distribution, and the *standard deviation* denotes the square root of the sum of the squared deviations about the mean divided by the number of deviations; in other words, it tells the researcher how far, on average, each score deviates from the mean. The standard deviation is the most popular measure of variation.

Skewness

When describing socioeconomic or demographic data, it often is helpful to assess the skewness of the data. Consider the following six income levels in a small community: \$9,000, \$10,000, \$11,000, \$20,000, and \$120,000. Five of the six incomes are less than the mean value of \$30,000. In such instances, the mean is considerably higher than median, making the distribution positively skewed. There are other instances in which the mean is vastly lower than the median, resulting in a negatively skewed distribution. In both instances, the median is a better representative because it is not affected by extreme values in the distribution. An understanding of the nature of distribution enables the researcher to use the appropriate index to describe the collected data.

Correlational Analysis

In several instances, an index of correlation that reflects the relationship between two variables may be relevant. If the grades students receive are consistently and positively related to their teachers' length of training, one can conclude that the two variables are correlated—that is, that students who are taught by highly trained teachers are likely to earn better grades. Although a number of indices of correlation exist, perhaps, the most popular two are the Pearson r, named after Karl Pearson (1857–1936), and Spearman's rank correlation, named after Charles Spearman (1863-1945). It should be noted that even if two variables are highly correlated, one cannot infer causality between them (i.e., assume that changes in one variable causes changes in the other) in the absence of other conditions.

In several instances, *nonparametric regression*, which relaxes the assumption of linearity between variables and replaces it with a weaker assumption of a smoother population regression function, may be viable. This is particularly helpful in longitudinal case studies (e.g., a case study assessing women's participation in the labor force over decades).

Inferential Techniques

By their very nature, case studies cannot be used to establish cause–effect relationships. Not only is there insufficient sample size (an *n* of 1, typically), but the very purpose of case study is not to establish cause–effect linkages. This also means that the generalizability of findings in most case studies is limited.

Despite the fact that case studies are not intended to establish cause–effect relationships, it may be fruitful at times to employ inferential statistics, especially if research consists of multiple or longitudinal case studies or if the case study focuses on an organization that possesses a considerable volume of archival data at the ordinal level or higher. The more important approaches to inferential statistics are outlined in the following sections.

Parametric and Nonparametric Statistical Tests

When the nature of probability distribution from which sample is drawn is known, it is possible to test hypotheses about its parameters. Most parametric statistical tests require measurements at least at the interval level. Typical parametric tests include the Z test, the Student's t test, the F test, and analysis of variance. Most of these tests assume knowledge of the shape of the distribution and/or underlying parameters. The focus typically is on testing for true differences in population means or variances based on observed sample data. These tests permit the researcher to make inferences about the population at prespecified confidence levels. Popular statistical confidence levels are 95% and 99%, indicating that the researcher's conclusions are valid 95 or 99 times out of 100. However, even a conclusion formed at a 99% level confidence may not have practical significance. This is particularly the case when the findings are not grounded in theory or observations became statistically significant due to large numbers of observations. For example, a correlation of .3 can become statistically significant with 250 observations or more, although the independent variable is able to explain only 9% of the variance of the dependent variable.

In several case studies it may be difficult or even impossible to make assumptions about the form of probability distribution of sample data. Many case studies also measure data only at nominal or ordinal levels. In such circumstances the researcher can use distribution-free nonparametric statistics. Statistical tests based on signs of differences, ranks of measurements, or counts of observations falling into specific categories are used to interpret the data. The more popular nonparametric tests are the median test, the Mann-Whitney *U* test, Wilcoxon's signed rank test, the Kruskal-Wallis statistic, and the Kolmogorov-Smirnov test. The median test is used to test the hypothesis that a set of *n* randomly drawn measurements originated from a population with a specific median. The Mann-Whitney U test is used to determine whether two random samples have been drawn from the same population or different populations. The Wilcoxon signed rank test compares matched samples to test the equivalence of their mean. The Kruskal-Wallis test is an extension of the Mann-Whitney U test and is used when the researcher is interested in comparing more than two populations. Finally, the Kolmogorov–Smirnov test is used to test for goodness of fit when the population distribution is specified. It should be noted that nonparametric tests can also be applied to data measured at interval or ratio levels, although the power of these tests are lower than parametric tests.

Pattern Matching

In analyzing case data, comparing the observed pattern of relationships among variables with a theoretically predicted one is a popular strategy. Depending on the volume and quality of data, simple frequency comparisons or correlational analyses may be appropriate. Use of multiple dependent variables assessed using distinct measures and instruments adds robustness to the analysis.

Explanation Building

Particularly relevant to exploratory case studies is the *explanation building process*, whereby the researcher attempts to make causal links based on existing theory or sound iterative analysis of data. Depending on the nature and volume of data available, correlational or path analytical approaches are feasible. In some instances, use of advanced structural equation models using statistical programs such as LISREL or AMOS may also be possible.

Time Series Analysis

In longitudinal case studies, values of a variable can be recorded over an extended period of time, making time series analysis viable. Even with a single participant, multiple assessments over time permit the researcher to make comparisons and form conclusions. For example, a single variable (e.g., student performance) may be recorded over time, and patterns noted. Here, the student may undergo some form of intervention (e.g., counseling) in one time period and his or her performance recorded. In another period, without counseling, performance is again assessed and differences with the treatment period noted. Statistical tests can help identify factors associated with the pattern. In complex time series designs multiple variables and multiple trends in the progression of a variable can be simultaneously tracked.

Analysis of Categorical Data

Categorical data take a finite or countable number of values and usually belong to a multinomial distribution, a distribution of a random sample from a population over the various categories measurable for each individual item in the population. Examples of categorical variables are social classes, age groups, number of political parties, and number of religious groups, where the given sample of people can be classified into one of the predetermined categories. Contingency tables, in which the observed values for categorical variables are cross-classified in a tabular form and relationships among them investigated, are popular. Statistical measures of association such as chisquare, Fisher's exact test, phi, Cramer's V, and Kendall's tau are most popular. Correspondence analysis combines the mathematics of the contingency table with a graphical technique to explore the structure of relationships among variables. The result is the representation of relationship among the variables in a graphical format, with points on the graph representing the categories of the variables under study. Multidimensional contingency tables, in which the main and interaction effects can be separately identified, may often require log-linear models. When the variable of interest to the researcher is binary and the explanatory variables are categorical, a logit model of regression can be used to identify interdependencies. For example, a researcher may use logit regression to understand the impact of road conditions (good or bad), driver experience (high or low), and size of vehicle (large or small) on highway accidents (coded as a binary variable, with 1 indicating not fatal and 2 indicating fatal). When the explanatory variables are continuous, logistic regression models are more useful to the researcher.

Functional Analysis

In several health-related, sociological, educational, and developmental case studies either a phenomenon or its predictor, or both, may be functional in nature, permitting functional adaptive model estimation. For example, in a school that employs two primary pedagogical approaches, the impact of a chosen approach on student achievement can be functionally portrayed. Linear or nonlinear regression models can be formulated depending on the data and assumptions. Functional analysis can be applied with functional predictors and scalar responses (or criteria). Researchers can also attempt nonparametric functional modeling when the assumptions behind the data do not warrant standard functional modeling.

Application

Paul Friesema's study of the impact of natural disasters on surrounding communities offers a good example of using statistical tools to analyze case data. Friesema studied the impact of disasters on four communities: (a) Yuba City, California (1955); (b) Galveston, Texas (1961); (c) Conway, Arkansas (1965); and (d) Topeka, Kansas (1966). Extensive time series data on various social and economic indexes were collected, and a complex time series model was used to analyze the data. The statistical analysis revealed that the disastrous events had very little long-term effects on the

communities, although they had considerable short-term impact.

Ramsay and Silverman's study of the nondurable goods index in the United States over eight decades spanning 1920 to 2000 offers a good illustration of the use of functional analysis to gather new insights into a phenomenon. Using the approach, they were able to show that the growth rate for the index was especially high from 1960 to 1975, when the Baby Boom generation was in its peak consumption period. In subsequent years, the growth was found to be substantially lower; this was attributed to a probable reduction in consumption. Using statistical analysis, the researchers were also able to separate the impact of World War II and the end of the Vietnam war in 1974.

John Fox elaborated on the application of nonparametric regression to a number of settings, such as analyzing countries' infant mortality rates, analyzing married women's labor force participation, and the rating of occupations on education and income levels by using census data.

Critical Summary

Although many case studies collect statistics, the depth of data analysis shows marked variation across them. Careful planning can facilitate collection of higher quality data, permitting sophisticated data analysis. Regression and correlational analyses are helpful, but one should always recognize the possibility of spurious correlations among variables not grounded in theory. Use of multiple sites and longitudinal data enable researchers to compare findings across different geographic, occupational, or temporal dimensions, permitting the formulation of richer, more grounded hypotheses. However, even here causal linkages should be established only carefully and only after controlling for potential confounding variables.

Hari Das

See also Interpreting Results; Multicollinearity; Quantitative Analysis in Case Study; Validity; Within-Case Analysis

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STATISTICAL GENERALIZATION

Park, CA: Sage.

Statistical generalization involves inferring the results from a sample and applying it to a population. To do this, the sample must be selected randomly and be representative of the population. It is important that the characteristics and units of the population (e.g., individuals, households) are specified before a sample is drawn.

Overview and Discussion

Scientific generalizability within case study research has often been challenged. Some scholars argue that statistical generalization is often not as relevant for case studies because the sample sizes are typically quite small and are often not representative of the population. For this reason, theoretical generalization is often used in case studies in which a previously developed theory is used as a template against which one can compare the empirical results of the case study. With this in mind, caution should be used when applying statistical generalization to case studies.

In order to statistically generalize the findings of a research study the sample must be randomly selected and representative of the wider population. It is important that the proportion of participants in the sample reflects the proportion of some phenomenon occurring in the population. The wider population must be properly defined prior to selecting a sample. Even when a sample is selected using random sampling methods, the ability to produce a representative sample depends on the adequacy of the sampling frame and any bias in from the selected sample units. Such biases can limit statistical generalization.

Application

Consider the following example of statistical generalization. If less than 2% of 5,000 randomly selected Canadian adults with chronic health problems report lacking access to healthcare, then one could generalize to say that only a small percent (or about 2% ± the standard error) of Canadian adults with chronic health problems report lacking access to healthcare. This conclusion is justified given the sample size and the randomness of the selection. It would be incorrect to say that exactly 2% of Canadian adults with chronic illness lack access to healthcare, because the margin of error needs to be taken into account. Researchers also need to be sure that they refer the appropriate group. For example, it would be incorrect to say "About 2% of Canadian adults lack access to healthcare," because the results refer only to adults with chronic illness and not adults in general (i.e., with or without illness).

John Nolt, Dennis Rohatyn, and Achille Varzi suggest that the general form of statistical generalization includes: n percent of s randomly selected A are B; therefore, about n percent of all A are B. Here s indicates the sample size, A is a property that defines the population about which you are generalizing (i.e., Canadian adults with chronic health problems), and B is the property studied by the survey (access to healthcare).

Random selection refers to a selection procedure in which all members of a population have an equal chance of being sampled. This implies that each sample member had an equal chance of being chosen. If the sample is sufficiently large, most sample members of a given population are approximately representative of that population.

It is important that sampling error also be acknowledged when generalizing because there is typically a margin of error surrounding the conclusions researchers draw about a population. The margin of error is dependent on the sample size in that smaller samples are prone to greater sampling error. The chances of sampling error also increase when there is considerable population diversity.

The success of statistical generalization greatly depends on the randomness of the sampling technique. Researchers should be careful not to apply statistical generalization with a nonrandom sampling technique.

Critical Summary

The value of research is often determined by the extent to which the findings can be generalized. A common mistake in case study research is to think of statistical generalization as a method of generalizing the results of the case study, because cases are not sampling units. Simply increasing the number of data points on a single case does not improve the generalizability of the findings. Within case study research the ability to generalize is often limited because statistical inferences can be legitimately made only from known and finite populations. Consequently, many case studies cannot be generalized to all future cases, only to the known and finite population of cases from which the sample was drawn. A case study often consists of one case (i.e., a community, organization, or person), and thus case study designs often cannot provide a basis for making statistically valid generalizations beyond that particular case. Thus, researchers often cannot be confident in a statistical sense that a case represents a wider class of cases. Even multiple case studies often remain too small for credible statistical generalization. For this reason, case studies often do not strive for this type of external validity. Keeping this in mind, researchers should use caution in generalizing findings or consider using theoretical generalizability.

Sally Lindsay

See also Analytic Generalization; Generalizability; Genericization; Sampling

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STATISTICS, USE OF IN CASE STUDIES

The use of statistics in case studies focuses on the collection, categorization, analysis, and presentation of numerical information. Statistical analysis is embedded in the quantitative methodological approach of studying case study data. This approach contrasts the mainstream approach in case studies, qualitative analysis, where the focus is on analysis and in-depth understanding of, in principle, textual information. Statistical analysis can be applied to a large number of research fields.

Conceptual Overview and Discussion

Statistical analysis is common in survey and experimental research designs. However, it can also be used in case study research, either by itself or in combination with qualitative analysis. There are three essential elements of statistics: (1) the population, (2) the sample, and (3) the variable. The population is a collection of units that the researcher wants to study, such as people, objects, neighborhoods, and events. A sample is a subset of units from a population. A variable is a characteristic or property of a unit from the population, for example, people's age and the number of births in a neighborhood. Performing statistical analysis is then focused on systematical classification and analysis of variables collected in a study on a number of units from the population of interest.

A huge number of statistical tests are available. In addition, the available literature on statistical analyses is abundant, ranging from introductory books to advanced mathematical texts. Although computer software for statistical analysis (e.g., R, SAS, S-PLUS, SPSS, STATA) has become increasingly available and more user friendly, performing statistical analysis is generally considered thorny. Taking into account these considerations, good practice of statistics in case studies requires well-founded choices. Some important considerations here are the type of statistics needed, the sample drawn, the goal of the analysis, the type of variables, statistical testing, and statistical significance.

With regard to the type of statistics needed, it is common to differentiate between descriptive and inferential statistics. Descriptive statistics focus on the manageable and understandable presentation of numerical information. Examples are figures of sports games (e.g., batting averages) stock markets, unemployment rates, and so on. Descriptive statistics are presented numerically (e.g., means and percentages), in tables (e.g., a frequency table), and in graphical displays (e.g., line and bar charts and scatter plots). In inferential statistics information derived from samples is used to make estimates, decisions, and predictions about the population as, for example, in a case study that bases the usage of rhetoric in editorials of a daily French newspaper, on a sample of one editorial per week during 1 year, to draw conclusions about all editorials of the newspaper, the population. In general, the greater the sample size, the more accurate the estimates from the population. Sampling is necessary when it is not possible or practically feasible to incorporate the whole population into the case study. Although the ideal of statistical theory is random sampling in order to make correct inferences, statistical analyses are also used in case studies that do not meet this requirement.

A huge amount of inferential statistical tests are available, and the choice depends on the goal of the analysis. In general, this goal is differentiated in (a) the comparison of the distribution of variables and (b) the study of relationships between variables. An example of the former is to analyze whether there are differences in birth rates between types of neighborhoods. An example of the latter is to investigate whether and how birth rates in neighborhoods are correlated with living conditions. Another important aspect for the choice between various statistical tests is the type of variables embodied in the level of measurement. The researcher should consider the values or categories that variables may have, for example grade points ranging from very poor to excellent indicated by the values 1 to 10. There are four levels of measurement, in ascending order: (1) nominal, (2) ordinal, (3) interval, and (4) ratio. A nominal measurement level means that categories of variables differ; for example, for the variable "gender" the categories are male and female. An ordinal level means that the categories differ and also have a rank order; for example, the variable "education," with 15 levels,

ranging from no education (value: 1) to university level (value: 15). Other, well-known examples of ordinal variables are attitude measures used in the social sciences, which often are measured with 5- or 7-point scales. Variables with an *interval* measurement level possess the features of ordinal variables and, in addition, have equal distances between the values. Examples are the variable grade points just mentioned, and temperature measured on the Fahrenheit scale. The highest level of measurement is the *ratio* level, which has the features of the three preceding measurement levels and, in addition, has a nonarbitrary, meaningful, value of zero; for example, length, weight, temperature measured in grades Kelvin, and the percentage of people receiving university education. The level of measurement determines which statistical tests that can be performed; for example, mean scores are allowed only for interval and ratio scales.

A vital aspect of statistical inferences is the concept of statistical significance. In essence, this means whether the results of a study can be considered as "real" results or whether the results are due to chance. For example, when there is a statistically significant difference between males and females in regard to wages earned it is unlikely that one would have found such a difference when there in fact is no difference at all between the two groups. In statistical testing the establishment of significance is done by formulating two hypotheses: (1) a null hypothesis, H₀, and (2) an alternative hypothesis, H₁. The *null hypothesis* states there is no difference or correlation between the two populations being studied, whereas the alternative hypothesis states that there is a difference or a correlation between the populations. When the empirical evidence is such that the null hypothesis is rejected in favor of the alternative hypothesis, this is a statistically significant result. Whether the results are statistically significant is determined on the basis of chance calculations. When the observed significance level—the probability of finding a certain result—is lower than a cutoff level (called *alpha* $[\alpha]$, usually a 5% probability level), the evidence is said to contradict the null hypothesis and to support the alternative hypothesis. Statistical significance is related to the concept of random sampling, which is supposed to result in the selection of units that are representative for the population. When this is not the case, then a statistically significant result may be due not to real differences but to errors in the sampling process; then, results may be reported as statistically significant when in fact they are not. It is a matter of dispute whether the considerations of sampling, significance, and statistical testing are relevant for case study research. It depends on many aspects, such as the goal of the study, the research questions, population characteristics and accessibility, the availability of multiple sources of evidence, and so on. Some common statistical tests are frequency analysis, cross-tabulations using chisquare tests, *t* tests, analysis of variance, correlations, regression analysis, and factor analysis.

Application

Two randomly selected case studies using statistics from a literature data base are Anneliese Andrews and Catherine Stringfellow's 2001 case study of software defects of a medical record system and Asunción Beerli and Josefa Martin's 2004 case study of tourists' characteristics and images of tourist destinations of the Canary Island Lanzarote, Spain. Andrews and Stringfellow analyzed the defect reports that were made available through a large medical record system. To analyze the defect reports, the authors drew inferences concerning the numbers of cumulative defects, numbers of statistics on the fault-prone components, and statistical comparisons (using chi-square tests) between normal and fault-prone components and indicators of test guidelines. On the basis of these statistical analyses, they proposed testing guidelines to make system test more effective. Beerli and Martin surveyed tourists in Lanzarote by means of a questionnaire containing topics on perceived images (opinion on fauna and flora, cultural activities, luxury, etc.), motivations, vacation travel experience, and biographical characteristics. They used a number of statistical tests (e.g., factor analysis, regression analysis, analysis of variance) and showed, among other things, that tourists' vacation experience is related to their perceived image of the geographic location.

Critical Summary

The use of statistical analysis is not the convention in case studies. However, it can be used in combination with qualitative analysis, and it also is reasonable of its own accord. Applying

statistical analysis in case studies brings into account a number of aspects that must be dealt with before one can profitably present statistical information. Among them are considerations regarding the accurate choice of statistical tests.

Hubert Korzilius

See also Quantitative Analysis in Case Study

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STORYSELLING

The process of storyselling occurs when a storyteller's conscious or unconscious motivation and intention are to make members of an audience feel guilt and shame if they do not ascribe to the teller's worldview. When the audience is entranced by a storyseller it has a tendency to overtrust the story and seller such that listeners become unreflexive from being overemotional. Should the audience members have bouts of reflexivity and challenge the storyseller, the storyseller simplifies matters in ways that make the listeners feel anxious, unintelligent, or immature. The storyseller is an individual who benefits from the anxiety he or she generates in the listener because it is the listener who ultimately feels, in some way, threatened by the story sold. The storyseller preys on the audience's self-esteem.

Conceptual Overview and Discussion

A *narrative* is a type of text that has a clear time sequence. It might be a short or an extended story

about characters and/or events, or it might be a life story spanning one's birth through death. Story is a particular type of narrative with plots and characters generating emotion in narrator and audience, through a poetic elaboration of symbolic material. A narrative might contain a story, or it might describe an organization's rules and policies and other tools of formalization. Story becomes a meaningful whole when its specific events are brought together by some form of organization. Story meaning is also influenced by the type and amount of emotion generated by the narrator in his or her narrative. Data and information gathered for case studies may describe an individual, a group, or a larger part of society and their motivations, experiences, and histories. Case studies are, at once, narratives and stories.

Much of the research and management literature that deals with stories and storytelling treats stories as though they are simply neutral objects rather than exploring the manner in which the story and dialogue are constructed to convince the listener to accept the story. Researchers who adopt a storytelling approach may assemble their case study material in a manner not just to re-present the case but to tell a story that is in keeping with how they have interpreted the case material. Some fragments of the case study are preferred to others that may lurk in the background, perhaps threatening to undermine the narrative the story contains.

Storyselling is the dialectic opposite of storytelling. Dialectic inquiry is the study of opposites or extremes to understand both positive and negative syntheses from (a) the relationship between opposites; (b) knowledge that quality generated by the relationship affects quantity, and vice versa; and (c) understanding that, to minimize negative synthesis (e.g., that of the master-slave relationship), there is to be a negation of the negated. Storytelling evokes positive emotions or emotions that will allow story listeners to reflexively engage in that narrative without feeling forced to bend toward the narrator's views. Storyselling, however, is the process of using a story to make listeners feel guilty or shameful so they also feel they must act in ways to please the storyteller. Storyselling uses negative emotional control to sway listeners to act in ways that mostly benefit the storyteller at the expense of the audience. Because storytelling and storyselling are dialectic opposites, they occur at the same time but to varying degrees. The more storyselling is used, or the higher the quantity, the lower the individual and social reflexivity or quality of the storytelling. And the lower the reflexivity, the more storyselling is tolerated and used at the expense of storytelling.

The most insidious forms of storyselling are those in which the storyteller is knowledgeable about the power he or she has over a less reflexive or nonreflexive audience. These storysellers purposefully use subliminal means to sway their audiences. Less treacherous storytellers are those who unconsciously fall toward the storyselling dialectic pole. In the case of (c) in the preceding paragraph, the negating of storyselling negates the storyteller's need to enslave and alienate the storied.

The remedy for storyselling is for the audience to remain reflexive and to challenge the storyseller on motivation and intention. The socially responsible individual is one who does not fall prey to storyselling either in the telling or the listening.

In case study research the term wounded storyteller has the closest relationship to storyseller. Wounded storytellers are those who narrate an important life event to effect positive change for self and other (e.g., a cancer survivor). Similarly, emergency narrators need and desire others to hear their story to relieve problems from marginalization, discrimination, and other social ills. Selfnarrators need to hear their own stories out loud so as to change their own lives. They are their own audience first. Wounded storytellers, emergency storytellers, and self-narrators use a low degree of storyselling because they do not hide the fact that they are trying to use guilt and shame to sway the audience toward their ways of thinking and being—they do not camouflage their need for narrative empathy or even sympathy because they tell their listeners what is needed. On the other hand, extreme storysellers conceal their true motivations and intentions.

A limitation in the study of storytelling is that its use has not been considered such that it has storyselling as its opposite extreme. It would seem that all storytelling is "good" storytelling. In a transitional sense, this leads to the implication that all reported case studies are good case studies, even if they can be characterized as being thick descriptions. One reason for this is that one must engage

in a degree of storyselling to introduce the subject; another is that it is more difficult to be critical of people who are wounded or in emergency states. However, a dialectical inquiry of storytelling would negate these postures in that we can truly understand the "good" only by understanding what can be "bad" about it. If one does not also consider the "bad" of storytelling (i.e., storyselling), it would be difficult to believe that openness to competing analyses (i.e., a scientific vice) is virtuous in narrative or story.

Consideration of dialectical development also pertains to the field of adult education garnered by the teachings of case study research studies. Without dialectic thought, there are fewer alternatives to consider when analyzing and reporting on a case. Therefore, the trustworthiness and truth value of the findings and conclusions are compromised.

The story a case study tells may or may not be useful, but it is the researcher (i.e., rather than respondents) who is responsible for deciding what case content would be included. Should the researcher, the subsequent storyteller, be highly influenced by respondents' storyselling, the case study findings' credibility (i.e., confidence in the truth of context), applicability (i.e., degree to which case study findings are applicable to other respondents and contexts), consistency (i.e., ability to repeat findings from same/similar contexts), and neutrality (i.e., findings are based on inquirer's interests and perspectives, etc.) are compromised.

Application

Recent years have witnessed the growth of an industry called *management coaching*. This industry has flourished as a pragmatic way of filling a void created by, in part, the failure of management and organization theory to provide managers with unambiguous advice as to how to manage. Whereas some people are skeptical about the idea that individual and group performance can be improved through coaching, others view coaching as a panacea for much that causes organizations to fail. The stories on which the coaches draw are a type of case study presentation. Case studies presented as stories at one level provide a pragmatic link that is not "some academic theory" or takes one into a mire of contested understanding but is clear,

unambiguous advice that comes from the real world of experience. Presented as a story, the case study is sold as a valid source of knowledge from which the listener may learn and use to improve his or her performance. Case study, as story, is used and abused (i.e., storyselling) to legitimate action and changed leadership and management practice.

A case in point is the book entitled Storyselling for Financial Advisors: How Top Producers Sell, by Scott West and Mitch Anthony, in which the authors boast that the telling of the right metaphors and stories will result in higher selling achievements. The goal of this publication is to use story efficiently to coach all consumers to buy more financial products and services, because clients fall asleep if you only give them the facts. Also, to tap resources of two of the largest demographically suitable markets, there are special types of storyselling for women and for those who are 65 years of age and over.

The bottom line is that West and Anthony tell readers that it is psychologically proven that selling a story puts people into trancelike frames of mind, making them more susceptible to influence. These are some of the types of motivation and instrumentality that Cheryl A. Lapp and Adrian N. Carr sought to explain through the application of dialectic inquiry of storytelling and storyselling, which is evident in two other case studies they analyzed. In the first case, a self-proclaimed consultant coach and storyteller used story to have the audience agree to make fun of people who had differing views on gender issues. Because of these views, this storyteller stated he was always punished and that, because of this, his life was always "bad." All audience members sympathized only with the storyteller rather than be reflexive about the entire situation. In the second case study the same result occurred. While eating copious amounts, an obese woman continually complained about being large. Also, as she storysells about how people treat her badly because of her weight, audience members serve her more and more food. In both cases, the audience is nonreflexive and serves up sympathy for each of the storysellers.

Critical Summary

The literature on storytelling seems to proclaim that all storytelling is good storytelling; however,

we have found that storyselling is the dialectic opposite of storytelling such that there are indeed negative instrumental facets of storytelling. Furthermore, there is a link between storyselling and its use in organizational coaching. In all cases, storyselling is allowed to occur because of a lack of reflexivity on both the teller's and audience's parts. Storysellers are able to manipulate the audience by making the listeners experience guilt and shame from the story sold. Case study researchers need to be aware of the other side of the coin to storytelling lest they are storysold on creating case studies that do not maximize truth value.

Cheryl A. Lapp and Adrian N. Carr

See also Ethics; Narrative Analysis; Narratives; Naturalistic Inquiry; Storytelling

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STORYTELLING

Storytelling is an alternative to narrative analysis and narrative representationalism in case study research. Whereas narrative is re-presentation of experience in a retrospective chronology of events, storytelling can be more about reflexivity on one's situation in the lifeworld in a web of stories. Stories are more dialogic than narrative, not only in terms of being multivoiced (polyphonic) but also in being multiperspectival (polylogical) and in differing stylistic genres (not only text but also conversation, dramaturgy, and architecture) and chronotopes (space-time conceptions). Narrative representation and storytelling reflexivity are equally important to case research. Together, they are powerful ways to trace the forces that push and pull people, organizations, and communities.

Conceptual Overview and Discussion

Storytelling is defined as the ability to shape life events into experience in a web of stories rather than a monological narrative. Storytelling does not take for granted that narratives are accurate representations (or reflections) of one's life experience.

Story Theory

Mikhail Bakhtin, in Dostoevsky's Poetics, treats story as other than narrative, as being more dialogical and polyphonic than monological narrative. Jacques Derrida, in Living On: Borderlines, theorizes narrative as a violent instrument of interrogation, whereas story (récit) is more of a double entity, that is larger and smaller than itself, identifies itself, is different from itself, and comprehends without comprehending itself. Italo Calvino, in If on a Winter's Night a Traveler, says we are producing too many stories, are saturated by them, finding stories that cannot be told until other stories are told first. Story therefore constantly takes in new content with each performance context and travels with many companion stories. When story settles to a repeatable script it becomes transformed into narrative representation and splits off from its dynamic shape shifting. If it does not, then the story is without beginning, middle, or end, in a web that is never ending.

Antenarrative is a concept Boje developed in Narrative Research Methods in Organization and Communication Research, as a way to understand how stories that refuse narrative order, or are not yet becoming narrative order, can accomplish a good deal of transformation. An antenarrative represents both a bet (ante) and a before (ante); thus, it refers to the before of storyability. When there is storyability, there is a shaping of events and characters into experience and into memory, as well as a reshaping of memory. Once the reshaping happens there is storyability, and then, perhaps, clusters of antenarratives converge into some nexus that is narrative, and the narrative can split apart or dissolve into strands of antenarrative. In a case it is a matter of noticing the antenarrating, the would-be storyability, as well as the emergence of the narrative and its potential dissolution.

Story reflexivity is a matter of noticing the internal and external dialogue among our identities. For example, Kenneth Jørgensen (2007, pp. 70–71) proposes Foucauldian genealogy as an attempt to remain faithful of the spirit of antenarrative, and avoid the deception of narrative, by studying how present practices have emerged as the consequence of complex interactions, negotiations, and struggles among many different actors, intentions, and interests. The point is to create a more reflexive relationship to the present by creating an alternative memory, which is for the benefit of the time to come.

Native Storytelling

Native-indigenous authors are reclaiming story from Euro-American structuralist and Russian Formalist narrative representation. For example, Leslie Marmon Silko asserts that White ethnologies report that oral storytelling among Native American tribes has died out because narrative turns story into museum artifacts devoid of the harsh realities of Native life (e.g., hunger, poverty, and injustice). The implication for case analysis is to use critical storytelling as counterstory to the narrative order of the case. Euro-American narrative altered Native storytelling traditions in acts of colonization, thereby changing the identity of Native tellers. Native author Thomas King, in The Truth About Stories: A Native Narrative, says the Native identity concocted in Euro-American narrative literature needs to be challenged. Similarly, Native author James Cox calls narratives in the Euro-American tradition "tools of domination and colonial incursion."

Restorying

Dominant societal or institutional narratives operate to control our lives in ways that can be taken for granted. Dominant narratives, according to Michael White and David Epston's narrative therapy, constrain our ability to story life experience differently. Narrative realists treat cases as concrete expression of some social or organization problem representation, as a set of causes and effects, and as socioeconomic factoids. In restorying, the dominant narrative reconstruction (or representation) of life events is treated as the problem. How can we unlearn a narrative representation and move along to antenarrative and storyability? Restorying opens up a space of discourse to question narrative representations of recurrent individual and collective memory. It is a journey of reflexivity about how one storytelling is related to others, or how it nests other stories that deserve to be told. There are always more sides of the story, more traces to other stories, and each version dissolves the idea of a beginning, middle, and end.

Whereas narrative is about representational validity, restorying is focused upon what James Tuedio calls *performative validity*. The latter is less about the verification of what happened and more about identifying the type of sensemaking that is represented in narrative representationalism. For example, a work, gambling, sex, or substance addict will swear he or she will change but often falls back into the same life script. For example, the gambler will give a narrative representation to verify the inescapability of gambling in such-andsuch a situation, but the restorying therapist will focus upon the performative validity of that account. An understanding of performance validity is a matter of coming to an understanding of the dynamics of choice in standing at the gambling tables. Restorving challenges the addict's narrative construction of reality. In restorying, the gambler reconfigures the scene of gambling.

Application

Example of a Restorying Case

In working with the Las Cruces, New Mexico, artists, galleries, studios, performing artists, and

weavers, we noticed that recurrent narrative motifs were recirculating, maintaining their domination. Recurrent narrative motifs are a kind of living case, where dominant narratives interplay with emergent storyable themes. One dominant narrative representation was that artists were too competitive, too interested in themselves to organize for the greater good of the entire Las Cruces arts scene. Another narrative representation was that coordinating bodies would form, then a leader would dominate, and the board members, as well as other members, would quit. Those who remained picked up a cause, a festival or theater, or some other kind of event, and cease organizing for the entire scene. The storytelling sessions involved a confrontation with these and other dominant narratives. There were what we called "talking stick circles," in which a talking stick was passed among group members while we and our students listened, took notes, recorded fragments of conversation, and took photos. We noticed that many of the dominant narratives no longer were the way people wanted to consider themselves. We are currently still in process, still coming up with ideas that could antenarrate, could move between contexts, such as into the city council, the mayor's office, and the county commissioners. Perhaps a new coalition can form, composed of the several organizing efforts. Perhaps a new storyability is taking place.

Native Storytelling

At the Otero gathering (native gathering) we conducted a session on the ways in which 2-minute elevator pitches differ in entrepreneurship and venture capitalism from the kinds of storytelling that the Native tribes do when the council of elders meets. In the Navajo Nation there are councils, and any entrepreneur with an idea makes his or her presentation. In this land of casinos (i.e., New Mexico) there are many such events. We did a bit of theater and had the Native people simulate an elevator pitch (narrative) with a tidy presentation of beginning, middle, and end. Then we switched to a tribal setting, to a council of elders. People did their presentations differently. In the case exploration, we noticed that being respectful, engaging in the ritual greetings, taking much more time to tell a story, using less of an "I" and more

of a "We" orientation, and doing something that would benefit the tribe in the long run seemed to matter.

Critical Summary

One implication for case research is that narrative, in its quest for petrification ends up ignoring the life of living story. Story life gets reduced to a structuralist form, or abstraction that is lifeless because it detached from its relational community bonds. What remains as narrative is something that is repeatable, and/or unchanging representation that is not adapting to context. Another implication of storytelling for case research is the difference between narrative validity (verification) and storytelling's performative validation. Are there others sides to the case story? Are there counterstories to the official narrative, to the author's rendition? Finally, can a case be restoried, that is, put into several contexts, given more dialogical and polyphonic rendition? Storytelling is an interplay of narrative past, living story present, and antenarrative future. As living story and antenarrative become more storyable, the residue can be more fossilized narrative. Antenarrative strands traverse contexts and morph in each telling, becoming different. There are choice points in the living story, where the living case is a dance of different stories, interplaying with an antenarrative shaping of the future, both are disrupting any move to narrative order, vivifying what has become lifeless.

David Michael Boje and Grace Ann Rosile

See also Narrative Analysis; Storyselling

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STRUCTURATION

The central concern of structuration theory is to propose some generic principles of the constitution of social life. In this regard, structuration theory is focused on the relation between actors and society. It addresses the issue of agency and structure. In this perspective, the notion of *duality of structure* is one of the most popular features of Anthony Giddens's (the founder of structuration theory) work. It suggests that social phenomena are the product and outcome of both structure and agency.

Conceptual Overview and Discussion

Giddens's structuration theory was extensively developed in his book *The Constitution of Society*. The ambition of structuration theory is to overcome the opposition between functionalism and structuralism on the one hand and interpretive sociology, such as ethnomethodology or phenomenology, on the other. More precisely, Giddens tries to link theories of the individual and theories of structure because he argues that action and structure are two realms of social

order are inseparable. Central to structuration theory is the interplay between human action and structure. This interplay is called the *theorem of the duality of structure*. This duality refers to the constitution of agents and structures. As just noted, Giddens refuses to oppose action and structure because he considers both that action is the outcome of structure and that structure is changed or reproduced through action.

Giddens's theory of action suggests that actors are not "structural dopes"; they are knowledgeable about their actions and reflexive on their behavior. By using the term reflexivity, Giddens emphasizes that actors monitor their action, including the flow of their interaction with others. For Giddens, actors know a lot about how society works, because they are part of it. This knowledge about society is implemented through two kinds of consciousness: (1) practical consciousness and (2) discursive consciousness. The most common is practical consciousness. In this case, actors are engaged in routines because they know how to act without consciousness and reflection. On the other hand, they also can act with discursive consciousness. In this situation, actors are able to produce verbal expression about their own action. Because actors know a lot about society, they contribute through their everyday practice to reproduce it. This is why Giddens asserts that the constitution of society is a "skilled accomplishment." Nevertheless, there is no guarantee that actors have a perfect understanding of the situation, because all human action takes place within a specific context. In consequence, human action can have some unintended consequences. Thus, the constitution of society is not fully mastered by the actors. To grasp the duality, one must to bear in mind that if actors know a lot about society this is because they are informed by the structures they enact.

With the term *structuration* Giddens expresses this will to conceive structure, not as a frozen reality but as a process linked to ongoing human action. Hence, *structure* is defined as "rules and resources." To explain this stance on structure, Giddens gives the example of language. Language is socially structured knowledge composed of generative rules—grammar rules—that are used as resources, to create sentences. Respecting such rules is compulsory to ensure a mutual comprehension between the speakers. This example illustrates

Giddens's position that structure is "always both constraining and enabling." Furthermore, these rules and resources are virtual, which means they exist only in the actors' minds. This point is crucial, because it implies that structure has two characteristics. First, it exists only in the instant of action. Second, it is a memory trace that directs the conduct of knowledgeable human agents. Thus, structure cannot be distinguished from agency. This perspective has a profound implication, because it follows that structure cannot be supported by any physical or material elements, such as technology.

Application

One empirical work inspired by structuration theory in case study research is Steven Barley's article "Technology as an Occasion for Structuring: Evidence From Observations of CT Scanners and the Social Order of Radiology Departments." Barley's article is a contribution to the literature on the influence of technology on organizations. To do this, Barley mobilizes structuration theory and more, especially the notion of duality of structure. More precisely, in this research Barley seeks to understand how the introduction of computer tomography (CT) scanner technology influences the structure of a workplace. First of all, Barley considers that the previous conceptions, in which structure is both "prior to human endeavor" and/or an "emergent property of ongoing action," are not adequate for a complete understanding of the way that technology could influence different organizational structures. Thus, Barley suggests resorting to a synthetic view in which structure is both a product of and a constraint to human action. In this perspective, Barley investigates the introduction of CT scanner in two radiology departments within the theoretical framework of structuration theory.

In accordance with the sequential model inspired by Giddens's structuration theory, Barley analyzes the structuring process of the radiological work of the radiologists and technologists via a longitudinal approach. To study the structuration process, Barley uses the notion of *script*. Barley defines scripts as behavioral grammars that guide people's everyday actions in a particular setting. Through these scripts people come to know what is appropriate within a context both in terms of behaviors and perceptions. The notion of

script is quite important for Barley's empirical perspective because it plays the role of empirical fulcrum, which ensures the interplay between structure and human action (which Giddens refers to as *interaction level*).

Two case studies were conducted in two radiology departments in Massachusetts (urban and suburban) over the course of 1 year. The first step in the case research consisted in documenting traditional radiological operations. Thus, Barley gathered some historical data on the technical and social organization of the radiology profession from both published sources and interviews with senior radiologists at two large medical centers. Moreover, to grasp the traditional operation in each department, Barley began these observations 4 months before the introduction of CT scanners. Data were gathered by being present at the full individual examinations. He recorded chronologically the occurrence and timing of events during each examination to produce a record of the behavior he had observed. Barley was also interested in uncovering the jargon; this is why conversations between participants were recorded. Last but not least, he also recorded the participants' interpretations of events. The second step in the construction of the case began with the introduction of the scanners. In this new stage, Barley observed the new scanner areas in order to compare, using a sequential model of the structuring approach, the evolution of the structure. The method to collect data did not change during this second step. During this research, Barley gathered 400 complete radiological examinations, including 96 CT scans. Analyses of the data were conducted in several steps. First, Barley identified break points to define the different phases of the structuring process in each radiological department. The changes in staffing patterns were used as such break points. Second, he analyzed the interactions between radiologists and technologists, and each episode was reduced to a type of encounter. Then, by examining the relative frequencies of interactions between radiologists and technologists, Barley identified the behaviors and perceptions characteristics of these interactions (called scripts in Barley's work) in each CT area during the different phases of the structuring process. Finally, the scripts were linked to particular structural properties of the organizations, especially centralization.

The study shows that the introduction of the CT scanner upset the departments' distribution of expertise and the division of labor between radiologists and technologists, although the interactions that followed the introduction of CT shaped structures with different degrees of decentralization. Moreover, the number of phases identified in the structuring process was also different in the two departments: four phases at the urban location and only two phases at the suburban location. These findings suggest that the structuration process is not intrinsically dependent on the technology itself but depends on the way in which the actors, embedded in different contexts, deal with it. In other words, structuration is dependent on the actors' minds. In the same line of argument, structure is often an unintended and unanticipated result of human action. In sum, Barley's work underlines that there is no technological determinism, because an identical technology could generate similar dynamics and lead to different structural outcomes.

Critical Summary

Structuration theory has provoked much theoretical debate. Moreover, *The Constitution of Society* is written in overly elaborate language and an analytic framework that is very complex and loosely organized, involving many relations between several theories and notions. Nonetheless, structuration theory is a major contribution to the social sciences and has deeply influenced management studies. Indeed, Giddens's work paves the way for important empirical research, especially about social change in a broader sense. A longitudinal research design is the most relevant approach within this perspective.

Philippe Naccache

See also Agency; Contextualization; Critical Realism; Double Hermeneutic; Ethnomethodology; Hermeneutics; Ontology; Phenomenology; Subjectivism; Symbolic Interactionism

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Subjectivism

Subjectivism in the social sciences refers mainly to individual experience, perception, and interpretations of the world as well as the material conditions and social relations that mold a person's vision. Despite its implied fallacy (in opposition to the assumed correctness of objectivity) in everyday language, the concept of subjectivism in case studies has been a source of methodological strength and reflexivity and contributes to the building of theory itself. According to some philosophical perspectives, subjectivism can be seen as a site where a person, the subject, is constructed in relation to others. What is meant by constructed is that, historically and socially, particular conditions tend to produce similar subjectivities. For example, two women sharing the same subject position vis-à-vis the state whether marked as citizens with the similar ethnic, racial, and/or religious background—may have similar views and perceptions in terms of their place in society and in relation to its other members. A case study that is sensitive to subjectivities can reveal what may not be visible to objectivists and quantitative research. Sandra Harding, a philosopher of science, argues that studying the subjectivism of marginalized people can uncover the assumptions and taken-for-granted explanations of the dominant discourse and its normalizing version of reality. Such a focus on the subjectivism of the marginalized can unveil how dominant worldviews are internalized by both researchers and study objects.

Conceptual Overview and Discussion

The subject and subjectivism have been a concern of Western philosophers from Kant to various 20th-century thinkers who have had a significant impact on the social sciences and humanities, such as Julia Kristeva, Luce Irigaray, Jacques Lacan, and Michel Foucault. In both the humanities and social sciences questions of reality and the limitations of the human capacity for knowledge have been equally important as the research questions asked about social reality. In the latter part of the 20th century, and mainly under the influence of feminist philosophy and epistemology, psychoanalysis, phenomenology, poststructuralism, and postmodernism, recognition of the subjectivism inherent in the individual/collective as a medium for in-depth analysis helped to reveal the connection among subjectivism, "the other," language, the body, and power. Sandra Harding demonstrates how subjectivism has to be embraced as part of knowledge production and reveals the biases inherent in objectivist perspectives of "male science." Critical perspectives developed in the context of postcolonialism and feminism highlight the problems associated with any claim to objective truth and show how an imbalance of power can obscure embedded and invisible mechanisms of inequality in seemingly egalitarian systems. Subjectivism is not only a matter of methodology; its status has theoretical consequences. For example, despite the popularity enjoyed by Foucault's power/knowledge approach, feminist critics question his assertion that subjectivism is constituted by relations of power. The next question raised, then, concerns what is attributed to acting subjects and what their potential is for resistance. These attributions to the acting subject influence interpretations and conclusions drawn from a case study when it comes to determining the significance of agency versus the limitations set by larger historical phenomena.

Some researchers see subjectivism as a perspective, and others regard it simply as a state of being. This state of being can be applied both to the researcher and the researched subjects. Awareness of the subjectivism of an individual researcher and recognition of the significance of elucidating the subjectivism of the researched subjects both constitute the researcher's attempt to position herself in relation to her study subjects. Taking empathy as their point of departure, some researchers would approach subjectivism

through participation in the daily activities of people in order to minimize hierarchies between the researcher and the research subjects; others would adopt a different subject position in order to achieve the same end. The subjectivism of the case study participants can be incorporated into the manner in which their narratives are interwoven or may be reflected in the topics that are discussed (and the relevant events brought up to illustrate them). Female anthropologists who study strip clubs usually try to capture the subjectivism of stripping by creating close relations with the strippers, whereas male anthropologists usually avoid tipping and decline to assume the position of male customer and his subjectivism however limited and transient the empathy created would be. Here, the rejection of the chance to develop an (admittedly fleeting) subjective experience ends up becoming the expression of a male academic subjectivism.

Application

In an article titled "Aboriginal Citizen, Discredited Medical Subject: Paradoxical Constructions of Aboriginal Women's Subjectivity in Canadian Health Care Policies," Jo-Anne Fiske and Annette J. Browne present four case studies to explore the position of Aboriginal women in Canadian health policy discourse. On the basis of these four case studies they show that, on the one hand, Aboriginal women are seen as empowered citizens, whereas on the other hand they become discredited medical subjects. After establishing the broader sexual stereotypes and public representations of Aboriginal women, the authors show how these alreadymarginalized women are undermined by the creation of a normalized citizen identity. Fiske and Browne subsequently turn their focus to health policies in the wider context, examining the activities, discussions, and reports of particular commissions, including, for example, the Royal Commission of Aboriginal People, provincial and local health authority boards, and other relevant forums. There are several correlations between the cases: the research, consultations, and discussions generated feedback that was relayed to the Royal Commission of Aboriginal People, and these insights ultimately served to shape the course of action in policy decisions. In each case, the authors look at the way in which the language and framework of the policies are discussed, negotiated, and implemented. Their in-depth analysis considers previous research results and the policies that were supposed to be formulated in light of these reports.

Fiske and Browne's article illustrates very effectively the active use of subjectivism in research and policymaking. First, in the earlier stages of their research, they talked to women living on reserves (in central British Columbia, Canada) and recorded their wishes in relation to a number of issues, including Native liaison services, which are central to the organization of healthcare. Second, these commission discussions revolving around policy decisions affecting the health of Aboriginal women, and the research that formed their basis apparently take the subjectivities of the women themselves seriously.

Furthermore, on the basis of these four case studies the authors offer an analysis that problematizes subjectivism in a highly productive way. They claim that implicit in government efforts to find solutions to problems and improve the existing healthcare is the assumption that they are doing the right thing by going to the source, asking people's own preferences, and learning about subjectivities rather than establishing objective research on which to base their conclusions. In short, state or provincial policymakers have been persuaded of the importance of research that reveals the subjectivities of the individuals in question in order to guide them in policymaking. However, Fiske and Browne's work also shows the downside of a blind assumption that the inclusion of subjectivism delivers optimal research results in seeking to understand the dynamic of social phenomena and historically formed inequalities among peoples. The authors show the way in which the dominant discourse frames the issues and illustrate how Aboriginal citizens are constructed as subjects that are identified by racial/ethnic identity. They further assert—in common with other scholars of state and public policy—that the efforts of states, which are keen to hear the voices of various groups of citizens, giving consideration to subjectivism, in many cases actually use these research results as a way of justifying certain policies by implying that "We asked the people, and that is why we are doing what we are doing."

Critical Summary

Subjectivism in the modern social research context should be seen not as an indicator of a lack of credibility but as an important component of case studies that aim to closely understand the perspectives of their participants and integrate these insights into their final analysis. In addition to the content of the stories or information provided by the participants, the form and narrative style in which they are conveyed to the researchers can also become a valuable resource in case studies. Case studies that engage with the social and historical construction of subjectivism stress the importance of revealing the ways in which subjectivities are produced—the point being that the inclusion of what is regarded as the subjectivism of persons or collectivities in case studies also necessitates giving consideration to the context in which such subjectivism is formed and conveyed. Researchers need to be aware of how their own vision and that of the participants may have been normalized, because they otherwise run the risk of tacitly accepting the categories and visions imposed by the dominant world discourse.

Hülya Demirdirek

See also Objectivity; Researcher-Participant Relationship

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SUBJECT RIGHTS

Although in common use, the term *subject rights* somewhat misleads semantically because the label *subject* is inconsistent with the language typically found in qualitative research. The term *participant* is more appropriate, because it conveys something apart from *subject*. Both terms are used interchangeably in this entry. Participant rights per se subsume such subject rights as may be included in ethical guidelines provided by organizations such as the American Psychological Association or the research ethics boards of institutions in which research is conducted.

Shared sets of expectations exist across research communities for information provided to participants and anticipated protective measures required for research that is conducted under the auspices of publicly or professionally accountable organizations. Because case study research may deepen the level of expected engagement, exposure, and disclosure, the rights accorded to participants must be reflected in researcher anticipations and subsequent obligations in ways that respect the *letter* of requirements and also in ways that honor the *spirit* of involvement.

Participation in research may be sought by means of a general appeal for volunteers, such as might be communicated through a popular and available medium. In a university context, depending on sample appropriateness, student involvement may be desirable; students often volunteer in exchange for academic credit or out of personal interest. Sampling methods including clustering, snowball, or other techniques that might attract an appropriate sample related by concern or interest to the topic of the research.

However the sample is accessed, each participant has certain basic rights that are more or less universally agreed upon. These rights include knowing the purpose of the research, understanding the procedures involved, the frequency of consultation, and the duration of interviews or testing procedures. Further rights include informing participants of anticipated effects, including risks or discomforts, and also benefits—to self, family, or others in similar circumstances, including community members or others who may benefit in the future. Participant expectations of

privacy, anonymity, and confidentiality should be fully explained and guaranteed as possible under the research conditions and contacts provided for further information or complaints. The researcher must stress that participation is always voluntary and not be connected to benefits, services, or conditions of employment or study. Withdrawal at any time for any reason must be allowed. An *informed consent form* that explains the foregoing issues should be provided for participant signature in agreement to the terms and conditions of the research.

Because much research in psychology and sociology deals with behaviors, patterns, and choices that deviate from social norms or expectations, atrisk populations or individuals alienated from larger society (e.g., members of minority groups, cult members, prisoners) may be singled out. The effects of labeling an individual as a member of an alienated group has an effect in and of itself, with implications that may enhance or diminish participant's sense of self-worth and his or her relationships with important others. Alienation may also create tensions between researcher and participant and distort communication and meaning.

Research participants have the right to not be selected. Applicants for study participation may not meet the criteria for involvement, depending on a variety of factors. Inclusiveness of participant traits depends entirely on the research question and study design. A study of reading skills for nonnative English speakers automatically excludes native speakers of English irrespective of any other characteristic. Excessively narrow parameters for participant selection can predispose response patterns.

How data are recorded, analyzed, reported, and ultimately disposed of are also matters of subject rights and usually addressed as part of an application for approval when conducting research with human subjects. Stories, images, artifacts, and opinions elicited from research participants develop new lives beyond the interview or observation. Once the research objectives are fulfilled, no further relationship with the research participant is necessary unless additional measures are needed for closure of issues related to the matters raised during the research process. The research object is represented as data and in effect removed from the participant's ownership. Public sharing of stories

through presentations and scholarly articles may cause an event, good or bad, to outlive its psychological usefulness and have a participant effect beyond that which was anticipated at the outset. Clarification and continual agreement of how elicited materials might be used should be acknowledged and understood from the outset.

Subject or participant rights in case study research may need to go somewhat further, because the nature of engagement requires types of involvement that are different from filling out a questionnaire or participating in a task. Deep engagement requiring matters of memory, opinion, and personal attitudes or beliefs may set a participant in psychological motion, activating triggers that can lead to recall of resonant experiences that may or may not relate specifically to the topic under investigation and may cause unforeseen and undesirable personal consequences for participants. Of equal importance to provision of required or relevant information prior to study engagement, all who participate are entitled to a debriefing or reflective opportunity, to bring about an acceptable level of closure. As with any question or issue of interest presented to a study participant, levels of awareness about that topic are heightened and can be expected to occupy cognitive, affective, spiritual, or even physical domains at or beyond the expected levels of engagement. Because case study inquiry often addresses issues of deeper meaning in social and personal life, topic sensitivity may be a prerequisite or outcome of issues posed or encountered. Controversial, or potentially controversial, matters, such as race, ethnicity, religion, lifestyle choice, substance and physical abuse, oppression, mental or physical health, and disability are topics that seldom touch lightly on individual lives when opened for discussion and opinion that inform research. As such, a measure of judgment on the part of the researcher that may be more akin to a counseling demeanor is required so that the participant is no worse off than before the inquiry commenced. A Hippocratic stance ensures that integrity of participant disclosure is preserved and respected and that no harm is done.

In cases of self-study or collaborative research in which participants are actually (co)researchers, (co)authors, and co-constructors of meaning, a conceptual blurring of expectations of rights occurs as part of the terms, conditions, and significance of the knowledge produced. Thus, my story, or my story of your story, involves collaboration with different aspects of the self as well as self-aspects of others involved. Study participants have the right to closure that signals an end to research engagement and includes sufficient feedback and debriefing to ensure that no residual matters from study involvement have a negative impact.

Michael Kompf

See also Alienation; Audiovisual Recording; Case Selection; Closure; Consent, Obtaining Participant; Ethics; Negotiated Order

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SUBSTANTIVE THEORY

A substantive theory may be constructed within the process of identifying differences and similarities of contextualized instances, and patterns, across and within case studies focused on a similar theme. The content of substantive theory is mainly descriptive, focused on the essence, or substance, of the numerous case instances in a parsimonious relational structure.

Conceptual Overview and Discussion

In the construction of substantive theory the theorizer seeks to enhance understanding by identifying similarities and differences of contextualized

instances across and within case studies focused on a similar theme. For the most part the instances include an element of intentionality. Suppose a researcher has collected many case studies on a common theme, say, unemployment or public housing or school principals. He reads these and notes instances and patterns of similarity and difference as well as instances that seem to relate only and specifically to a particular case study. This goes beyond a review of the literature because the researcher is seeking elucidation of problems and questions in pursuit of an idea about how things have come to be like they appear or seem to appear. A record is kept in which the researcher names the instances in context, similarities, differences, and those that fall into the category "don't know but of note." The record is revised as more cases are found. This method may be called analytic induction. All along the way, and certainly when the instances in context have been sorted and re-sorted, eliminated, or placed elsewhere, then new questions arise, often about relevance. The process of sorting nears the point when the researcher has to advance an understanding of what all the case analysis means in relation to the original problem or problems. This process occurs all along the way, not just when a deadline has been reached. The key question for the researcher at this point is: What is the essence or the substance of my analysis? Can I say that I have a defensible account of why the analysis has led to a collection of data patterns that do not occur elsewhere? What have I learned about the intentionality of the action within and across the cases? The analysis of the instances and patterns extends the description to become more inclusive of more instances and even categories of instance. Each descriptor is given a name or code. In arriving at the analytical category the researcher has made many rejections, inclusions, and inferences. The whole now has to be related in a coherent and cohesive way, because it is integral to seeking understanding. The whole of what will be called a substantive theory is a refining of data to categories of the many instances analyzed.

Application

The process of substantive theory formation in case study is clearly stated in the work of Louis

M. Smith and William Geoffrey, Howard S. Becker, and Robert E. Stake. Smith and Geoffrey construct theory from small, clearly defined instances and build these into substantive theory within the case. Becker uses more expansive instances across and within a few cases, and Stake seeks to provide routines for understanding through the analysis of a large number of instances across many cases. Substantive theory may be one of the outcomes of grounded theorizing.

When seeking a wider understanding of a complex case or across cases the researcher may pursue the process of constructing a substantive theory. This attempt may discover the essence of the instances and their categorical relationships. If the researcher offers a substantive theory then it would be seen as such only if a wider readership attests to its enhancing of understanding.

Anselm Strauss provides an account of how he derived the formal theory of *awareness contexts* from substantive theories across themes. Strauss raises hypotheses and seeks to refute them by deduction using the substantive theories as data.

Critical Summary

For public debate, the process of arriving at substantive theory should be made explicit. The reader should evaluate the claims to substantive theory made by researchers. Some researchers go further in that they claim to have arrived at a *formal theory* from the elucidation of substantive theories. Formal theory is considered explanatory and causal and thus is different from the description and understanding of substantive theory.

Clem Adelman

See also Philosophy of Science

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Symbolic Interactionism

Symbolic interactionism is a major sociological perspective or theory that focuses on human interaction and its central role in the creation, maintenance, and transformation of culture. More than any other sociological perspective, the symbolic interactionism perspective has given credence to the legitimacy of qualitative research methods and the value of participant observation and case studies. At the core of the symbolic interactionism approach to social analysis is the proposition that human beings interact not out of some a priori truth but in relation to mutually defined meanings that are themselves always in sensitive interaction with existing and emerging social realities. Thus human interaction, and the societies made possible by such interaction, allows individuals to have considerable influence on the management and transformation of their cultures. Such agency is made possible by the fact that humans distinguish themselves from the animal species because of their ability to communicate using symbols, embed these symbols in a coherent language, and engage in thought processes that help them construct and extract meanings that are collectively coherent.

Conceptual Overview and Discussion

The symbolic interactionism perspective emerged in America, a country that had broken away from classical European philosophy because of the unique requirements of its developing colonies. Survival in these colonies required a social philosophy capable of harmonizing the humanities with the rugged action-oriented individualism that was necessary for the development of a pristine land. Whereas the Europeans sought philosophical positions that played a consolatory or remedial role

following hundreds of years of wars, the Americans required a person-oriented, progressive-minded social philosophy that not only recognized the uniqueness of the American experience but also provided some structured philosophical explanation of the emerging action-oriented American consciousness.

Although Herbert Blumer (1900-1986) is formally credited with coining the term symbolic *interactionism*, his ideas are indebted to a variety of thinkers who preceded him. In fact, the roots of the symbolic interactionism perspective are found in the early American pragmatism movement, of which Charles Saunders Peirce (1839-1914) is considered the founder. Peirce broke with classical European idealism, as expressed in the works of Immanuel Kant and G. W. F. Hegel, by affirming that there was no unwavering "categorical imperative" of "right action" governing human consciousness and action. He believed instead that both truth and meaning were intensely influenced by the outcomes they caused. How a truth or meaning was to be received and what its future role in social organization was to be would depend very much on the usefulness of the practical effects that followed. Practice itself was a part of the knowledge creation process and could not be separated from it.

Although Peirce did not find a large audience for his work, his followers succeeded in influencing the manner in which social science was practiced in America. Following from Peirce, the American psychologist William James (1842–1910) explained that human consciousness functioned in a "streamlike" manner, parallel to and often intertwined with the sphere of action. Human meanings did not emerge from external ideas that stood apart from actual lived experience; instead, they developed within a constantly evolving social setting in which knowledge was produced according to concrete practical needs.

Similar to James, John Dewey (1859–1952), who had a seminal influence on the development of a research-oriented, hands-on American educational system, was a passionate proponent of pragmatism, believing that the process of inquiry possessed in and of itself the power to produce measurable and useful results. The scientist was, therefore, not only an investigator but also a participant who could significantly contribute to the

positive progress of society. The integrity of an objective study was in itself a source of progressive and practical outcomes.

Blumer, a devoted student of George Herbert Mead (1863–1931), based much of his thinking on key concepts in Mead's seminal work, Mind, Self, and Society. In that work Mead explained that reality is neither absolute nor developing in a sphere separate from the human one; instead, it is dependent on the perspectives and explanations shared by those who observe it. Because culture is created and influenced by the human ability to use symbols, language, and thought, the formation of the self, the mind, and society is part of an interactive and interpretive process. For example, a child's universe initially consists of an awareness of her self (the "I"), yet very soon her interactions with "significant others" produces an awareness of the "I" as both a subject and object of culture (the "Me"). The child rapidly learns to manipulate symbols and language to produce meanings that are coherent to her as well as others. Her socialization develops further through the playing of games in which specific rules regulate behavior, thereby providing an introduction to the process of taking on a social role.

Early supporters of symbolic interactionism included Charles Horton Cooley (1864–1929), W. I. Thomas (1863–1947), and Erving Goffman (1922–1982). Although symbolic interactionism became the predominant perspective of the Chicago School during the early decades of the 20th century, it gained broader appeal when sociologists sought relief in the 1960s from the dominance of Talcott Parsons's (1902–1979) abstract grand theory approach to social studies. The symbolic interactionism perspective allowed social analysts to move from the study of social structure to more grounded studies of smaller group processes. More recently, sociologists, such as Arlie Hochschild, have demonstrated the validity of the proposition through a series of seminal studies of human organization. Hochschild's use of case studies in The Second Shift and The Managed Heart has demonstrated how study of a particular case can reveal much about broader trends.

Application

What is particularly interesting about the symbolic interactionism perspective is that its theoretical

insights point to the necessity of more local (micrological) observations consisting of focused participant observation as well as case studies.

Although symbolic interactionism may appear deceptively simple at first glance, it is based on a rich social philosophy that attempts to harmonize the development of the individual with the progress of society. Its origins in the American pragmatism movement provide it with four foundational truths: (1) what is perceived as real depends on our interpretation, (2) what is knowledge is determined by what we end up remembering and forgetting according to what we find useful, (3) social objects are perceived and valued in terms of their usefulness, and (4) the study of action reveals much about the actor and his or her milieu.

These premises have allowed social scientists who follow the symbolic interactionism perspective to focus on the capacities humans use for the creation of culture: symbols, language, and thought. Instead of seeking a priori truths they seek to understand the manner in which individuals and groups construct their social realities. The ability to use and manipulate *symbols* allows individuals to create meanings regarding their own selves and those of others who occupy the social world. Language permits individuals to communicate and negotiate meanings with one another. Finally, thought provides individuals with the ability to reflect on symbols and modify their interpretation; through the thought process, individuals possess the ability to enter a mental conversation with the self and others that permits the inclusion of different points of view. Thus, little is fixed in the social world because humans possess the ability to use symbols in creative transformative ways. Although much behavior is habitual and the product of shared meanings, human beings are active agents of an interactive world in which adjustments are constantly being made to accommodate changing levels of awareness and changing psychological, social, and physical needs.

Blumer's seminal contribution to the contemporary symbolic interactionism perspective was also indebted to the work of W. I. Thomas, who explained that human interpretive action is based on the "definition of a situation." The social world is made possible by social actors who interact and exchange impressions regarding the situation that is the focus of their interaction. Calibrating and

adjusting definitions of a situation allows social actors to achieve collective agreements and to understand the nature and function of roles and the manner in which social change can be achieved.

However, what ensures that social actors are interpreting situations accurately and understanding the intentions of each other? There is no assurance. As Cooley explains in his theory of the looking-glass self, an individual does not react to the meaning of another but to what he or she imagines to be that meaning. Although the opportunities for misinterpretation are legion, so are the opportunities for mutual negotiations and transformations of meanings.

The implications of the preceding insights for a methodology of social observation are considerable. Blumer, Thomas, and Cooley shared one thing in common: They were willing to observe mundane social situations in order to extract from them general principles of human behavior and social organization. They were not sociologists of the armchair but active participant observers. They understood that a social situation could not be analyzed without intense observation of the interacting agents; if human behavior was symbolic then it had to be studied not only in terms of outcomes but also in terms of intentions, because the interpretive act prevented the two from always being identical.

One of the more representative studies that used the symbolic interactionism perspective is David A. Snow and Leon Anderson's study of homelessness, Down on Their Luck: A Study of Homeless Street People. In a chapter entitled "Salvaging the Self," they describe the results of numerous interviews and conversations with homeless individuals. Rather than limiting themselves to a study of demographics and disabilities, the authors investigate how these unfortunate individuals make cultural sense of their situation and how they maintain a sense of self that allows them to continue from one day to the next. Snow and Anderson's study reveals that many homeless individuals, rather than giving in to irreversible despair, use a host of psychological resources to define and redefine their predicament in order to preserve their identity and self-esteem despite the absolute lack of material resources. Some rationalize that they are temporarily down on their luck and will soon reclaim their former lives, some fantasize that they will become rich, some affirm their status by observing that they have more of a chance of recovery than other homeless individuals, and some others accept their situation as a privilege by distancing themselves from social welfare agencies.

With the compassion and other-respect characteristic of good qualitative researchers studying misfortunate levels of society, Snow and Anderson confirm the central premise of the symbolic interactionism paradigm: As important as observable reality is the interpretation of the social actors who are in the grips of that reality.

Critical Summary

Symbolic interactionism has been criticized for focusing on micrological situations at the expense of broader social insight, yet this critique does not take into account that those who subscribe to the perspective study isolated social phenomena (i.e., how a particular profession builds and maintains identity, how a working mother manages her time, how a flight attendant manages to maintain a pleasant front despite the stress of dealing with demanding customers, how a person diagnosed with a terminal illness interprets the meaning of the rest of her life, how a person handles a sudden radical change in his social status) in order to discover broader generic social processes that are present in such supposedly isolated social situations. Thus, in the final analysis the symbolic interactionism perspective offers social scientists two opportunities. First, they can study an isolated social reality for its own sake and arrive at insights that make valuable contributions to social policy and behavior management development. Second, they can extend their study to arrive at insights regarding the social structure and organization of society. In the older grand narrative paradigm, society was seen as a structure, much as would be seen a building or organism. In the symbolic interactionism paradigm social structure is not denied but seen as an interactive social field possessing an identity that is continuously in development.

For researchers, this means approaching social actors as subjects rather than objects. The primary questions in such qualitative research are the "how" and "why" of human action. What counts

in the social study is not simply the behavior of the subjects but their own perception and interpretation of those behaviors. Whether the researcher uses in-depth interviews, focus groups, biographies and autobiographies, documentary and conversation analysis, or some of the cutting-edge methods emerging in visual sociology and videography, the purpose of the research is to probe at the lived-in experience of subjects. In this manner researchers not only develop the ability to place themselves in the shoes of others but also acquire the elusive ability to arrive at a holistic understanding of human nature and the manner in which humans maintain and change social order.

Benet Davetian

See also Agency; Autobiography; Constructivism; Conversation Analysis; Self-Presentation; Social Interaction Theory; Subjectivism

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Symbolic Value

The word *symbol* comes from the Greek verb *sym*ballein, meaning "to piece together; to (re)join." Within the verb *symballein* this assembly or joining together also implies a veiling or coveting. In its modern meaning the word symbol is that image of an object, person, or thing made to stand for a wider concept or quality. By utilizing imagery symbols are visually effective; they embody ideas and reinforce ideologies and beliefs. Symbols are multilayered; they can have multiple meanings. The examination of symbols, therefore, involves peeling back the layers of cultural and historical palimpsest in order to get a glimpse at the structural origins of meaning. Symbolism is a popular and historically legitimized modus operandi for the social realm. It attempts to harmonize the problematic relationships between the ideal and the material, in order to synthesize organizational and cultural discord. Historically framed in the mystic and spiritual symbols crystallize ideas whilst remaining general. By reason of relationship, association, attribute, or convention symbols have complex and intentionally ambiguous meanings.

Symbolic value functions as an authoritative embodiment of the symbol. A person, thing, or place may have symbolic value; that is, aside from any tangible capital (e.g., economic or political) they have significant symbolic resonance. Buckingham Palace, for example, is far more than a purely economic or structural feature; it is a symbolic resource of British historical longevity, stability, and power. At the same time, Buckingham Palace also stands for colonialism, the British Empire, and domination. Symbols are interpreted differently depending on the cultural resonance for that group or person. Certain things can have a use value—a practical objective as well as symbolic value; for example, the ability to communicate identity (e.g., a Rolls Royce car provides the owner with both transport and status). A place or object can have both economic and symbolic value (the Eiffel Tower). Thus, the value of any given object is always a sum of its symbolic and other capital. The British monarchy, for example, has relatively little political acumen (the monarch can offer advice upon policy), but the symbolic value of the monarchy (unity, coherence, deference, stability, tradition, culture) far exceeds its political use value.

Pierre Bourdieu (1930-2002), the acclaimed French sociologist, developed the related concept of symbolic capital in his book Distinction: A Social Critique of the Judgment of Taste, the origins of which are found in Max Weber's analysis of status. It is also possible that the source of symbolic value goes deeper into the recesses of the human psyche, for example, into human mythology (the human-spiritual connection with the referent or phenomena). In particular, symbolic value may be linked to religious beliefs concerning the relationship among God (or gods), people, and the referent: the divinity of the symbol (the Christian crucifix). A fundamental problem when using symbolic value as an analytical tool to determine meaning is that symbols may be too abstract or too complicated (in their relationship to the real or the material) to be easily defined or interpreted.

In art, Symbolism is a style developed in the mid- to late 19th century and is characterized by the integration of symbols and ideas, which represent more profound thoughts, feelings, or ideas. Edvard Munch's painting "The Scream" typifies this art form. Symbolists believed that art should capture higher or absolute truths that are accessed only by powerful abstract means. In literature, the French 19th-century poet Charles Baudelaire (1821–1867) is representative of the Symbolic school. In *La Vie Anterieure*, one of his more famous sonnets, he writes a poetic description of the symbolic "to understand without effort—the language of flowers and speechless things."

Conceptual Overview and Discussion

Prior to outlining the methodological approaches to studies of symbolic value, a little contemplation needs to be given to the theory behind the association among symbolic meaning, human nature, and social performance. The conceptual framework employed in many studies of symbolic value is *symbolic interactionism*, in particular, the perspective of George Herbert Mead. Within this broad school of thought the individual and society are characterized as part of a dynamic communicative system in which the self is conceptualized as a

social structure, a result of social experience. Groups as well as individuals have the ability to create and interpret symbols. Symbolic function is thus fundamentally social.

Throughout the course of history philosophers have argued that the formation and use of symbols is both an exemplary and differentiating feature of humankind. In recent philosophy symbolism is a social theory that emerged as a distinct perspective in the late 19th and early 20th centuries. Those who advocated the theory had a core belief that humans construct their realities through semiotic investment in the power of symbols. Semiotics is the science of signs and the study of any medium as a sign system. It seeks to answer the questions "What is the nature of meaning?" and "How do human realities attain meaning?" Semioticians consider coded systems essential to the organization of people. The history of semiotics can be traced back to the pre-Socratic era. It gained modern explication especially through the works of Swiss linguist Ferdinand de Saussure (1857–1913).

Symbolism shares analogous elements with structuralism and therefore has a significant influence on modernism. Indeed, because of their structuralist underpinnings symbolism and modernism are often virtually synonymous. In both tropes differences and diversity in the social world are subsumed under broader signifying categories. It was during high modernity in the mid-19th century that many nation-states developed. Symbolism was adopted for the specific purposes of nationalist canon building, to codify new national identities. Modernity sought order and effect, and the symbol was the de rigueur instrument of social and national control. Symbols were appropriated to express meaning and identity to the new populations. Conflicting representations from other groups threatened to undermine the hegemonic national order and were thus quashed; consider Spanish dictator Francisco Franco (1892–1975) and his suppression of Catalan and Basque culture. Such illustrations are found throughout history, for example, Christianity's destruction (and simultaneous appropriation) of pagan symbols.

Application

Methodologies employed in studies that use symbolic values for social analysis differ. Recent

analyses of symbolic value in research include studies that seek to understand cultural or societal organization. Management literature, especially, has found a place for theories of symbolism. Indeed, the analysis of organizational behavior through symbolism amounts to an epistemological episode in the history and theory of organizational studies. Current research into organizational symbolism draws heavily from anthropology, in particular from its ethnographic methodological roots. The idea is that symbols of organization culture both describe and guide human behavior and thus the cultural norms of that organization. The descriptive and prescriptive use of such symbols expresses and maintains core beliefs and regulates the behavior of individuals in new or unfamiliar territory within that organization. They are designed to motivate organizational members, initiate action, and represent key organizational values and assumptions. They foster communication over more complex organizational issues. Furthermore, symbols integrate the whole organization into a simple schema of signification.

Because of the emphasis on the symbolic value of language (metaphor, metanarrative, allegory, myth, legend, folklore) ethnography and discourse studies are popular methodologies. In-depth interviews with members of the society or organization are often an effective method. Other research methods also facilitate analyses of symbolic value; these include participant observation, focus groups, reflexive diaries, and content or semiotic analyses of company literature. The results of studies based in symbolic value can be used to help facilitate a better understanding of the priorities and goals of the organization or the importance and relevance of a particular idea or concept. Edgar H. Schein, a key 20th-century organizational theorist, warns of a potential limitation when researchers study organizational culture through symbol: that the meanings given to a symbol by the researcher are not necessarily the meanings inferred by organization members. For the research such observations should become issues of methodological concern.

Case study investigations that wish to extract symbolic value can explore singular phenomena and yet also categorize multiple sites. A multiple case study design may appeal to certain symbolic research. Here, richness derives from the contrast and diversity achieved from investigating multiple cases. With this in mind, Kathleen Eisenhardt demonstrates that multiple case studies are an effective means to create theory, with contrast and difference adding value to the subsequent theoretical production.

David Glen Mick, in an excellent article entitled "Consumer Research and Semiotics: Exploring the Morphology of Signs, Symbols, and Significance," charts the rise of semiotics and thus symbolic value as a crucial research tool in the social sciences, particularly emphasizing the applications and implications for consumer research. He reviews in detail, among others, the works of Rebecca Holmon in which she employs symbolic value in a variety of societal studies that include analyzing women's dress, human behavior, consumer choice, the semiology of product choice, corporate advertising, and communicative language.

Elsewhere, Mary Jo Hatch and Majken Schultz edited a collection of works in their book Organizational Identity: A Reader that oscillate between using symbolic value and performance studies in a reflection on contemporary constructions of self and social identity. From the analysis of applications of George Herbert Mead and Erving Goffman's social philosophies, to the critical perspectives of Mats Alvesson and Hugh Willmott, the book provides comprehensive insights into methodological and theoretical matters specifically pertaining to symbolism as well as broader social scientific inquiry.

French poststructuralist philosopher and sociologist Jean Baudrillard (1929–2007) espouses his theory of the symbolic in response to the metaphysical underpinnings of structuralism. He claims that structural investigations of symbolism (e.g., organizational cultural analyses) uphold the *law* of value, a polarizing, metaphysical quest that enables researchers to report on the meaning of things. According to Baudrillard, any theory of "real values" ultimately underscores the fetishized relations it criticizes. He therefore relocates the law of value within a genealogy of the "image." In his work Simulacra and Simulations he describes four periods of simulacra (in which the image becomes more and more free of its referent) where eventually the image has no relation to reality whatsoever; it is its own pure simulacrum. This hyperreal stage describes the extreme limit of symbolism,

wherein representation transcends reality. It is important to note, however, that Baudrillard and others in his field have been criticized (not unlike symbolists) for reducing everything to surface and text, in which a world without substance is premised on relations between images that bear no resemblance to the real.

It is important to note that much of contemporary philosophy and the social sciences remind us that the categorical boundaries between modernism and postmodernism are blurred. Despite suggestions that symbolism is synonymous with modernity, postmodernity also succumbs to the alluring power of the symbol. Postmodernism's proclivity for eclecticism, appropriation, and contradiction leaves no exception for the domain of symbolism. Luce Irigaray (b. 1932), a French feminist, in her general project of deconstruction on the history of philosophy, exposes patriarchy and its dread of females and produces instead a positive symbolism for women. Many other disenfranchised groups, by using symbols as metaphors of power, have also attempted to reclaim epistemological and symbolic space in which rhetorical intervention is made possible. Reactionary politics and alternative discourse can be circulated in these symbolic spaces of empowerment. The rainbow flag, for example, symbolizes diversity and new horizons in many lesbian, gay, bisexual, and transgender communities across the globe.

Critical Summary

The broad shift in the social sciences to collapse binaries and to celebrate diversity and multiplicity in the world corresponds with the postmodern view of culture as disjointed and contested rather than integrated and normative. The modern view of symbols is that they are *things* that represent reality; the structuralist view of symbols is that they are *scaffolds* that frame a cultural reality; and the postmodern view of symbols is that they are *arbitrary flotsam and jetsam*, or at best fragments, built into performative social existence. There are five principal conclusions about symbolic value:

- 1. Consideration of the past still requires a journey into symbolism (because this is often all that is left).
- 2. Poststructural accounts of the social highlight the negligence of structuralism, and offer limited

- practical guidance, but they do encourage alternative epistemologies (e.g., feminism, queer theory, nonrepresentational theory, actornetwork theory, performativity, and materiality).
- 3. Human symbolism is incredibly diverse (it includes artifacts; signs; icons; rituals; stories, myths, legends; identities, including, among others, gender, sexuality, ethnicity; intellectual, technological, and indigenous knowledge; and a range of ideologies) with the implication, therefore, that more reflexive and inclusionary methodological approaches are required (see the Actor-Network Theory entry).
- 4. The structural underpinnings of symbolism can no longer substitute for multiple truth claims.
- 5. Perhaps the most alarming, the structural underpinnings of symbolism can no longer substitute for the return to the real, the body politic, social performance, the matter of the material, and material performativity, instead of symbolic representation alone; all vehemently undermine the epistemological and historical legitimacy of symbolic value as an analytical tool and a theory for the social.

At the risk of too much generalization, a historical overview of the theories of symbolism include those modern traditions that tend to view symbols as representing social realities, whereas postmodernists and poststructuralism usually view symbols as constitutive of social realities and cultural existence. In poststructuralism the symbol continues to fascinate, but apathy and indifference are among the outcomes, and guarantees of coherence and unity are no longer promised.

In short, symbolism historically divorces the subject from the real. The material realm always remains beyond the reach of signification. Once the material is signified, relationality is lost, the corporeal is undermined—and the matter is now subject to the limits of representation. This has led recent theorists and some researchers to return to the real, in which materiality and performance become the modus operandi for the social. Similarly, as social science and contemporary philosophy continue to (re)discover the body politic (the sensual social), the symbol as the ultimate optical stimulus loses credence in these contemporary ontologies of embodiment. An important question thus arises: Is the value of the symbolic now waning?

Despite the epistemological shifts and the methodological challenge, symbolic value continues to organize how we think about social realities, and it can still provide detailed, in-depth, and useful understandings of human organization and culture. Today, symbolic value is regularly employed in academic inquiry, yet, like the symbol itself, the future is not so clear.

Neil Michael Walsh

See also Actor-Network Theory; Deconstruction; Metaphor; Modernity; Organizational Culture; Performativity; Poststructuralism; Sign System; Simulacrum; Symbolic Interactionism; Symbolic Violence

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Symbolic Violence

Symbolic violence refers to the advantage that persons and groups exert against others because

of their higher status in the social structure of society. Symbolic violence does not necessarily require physical violence to be upheld, and those deemed inferior accept this as though it were natural. As a result of their advantage, individuals in higher positions of stature within society are able to dominate others lower down and keep them from having access to the same opportunities and privileges.

Conceptual Overview and Discussion

Sociologist Pierre Bourdieu developed a theory of social structure that relied on the existence of fields within society, which had their own rules and were considered status quo. Because the social structure of society often relies on the qualification of some social groups over others, depending on their ownership of forms of capital that are valued by society and those fields, some are seen to be superior and others inferior. Bourdieu explained symbolic violence as the way that strata within society are able to remain stable and be accepted by all within it, including those at a lower level. Bourdieu used the term *field* to encompass a realm within society that has its own rules, for example, the field of education, economics, the home, or law. Within each field these rules govern definitions for what and who is deemed more and less valuable. Each player within the field is born into a certain *habitus*, or self-knowledge, that is not only defined by a common understanding of the value of individuals and traits but also is monitored by other members of the field according to these rules. Capital in many forms, including economic, social, cultural, educational, and symbolic, is accumulated by players and traded up for better levels of society within the field. The social strata of the field remains stable, unless there is a crisis, in which the definition must change because of a change in values within the field. However, the field usually stabilizes and maintains its hierarchy of players according to a new definition of valuable capital.

Application

Case studies have provided the opportunity to delve into the construction and sustainment of symbolic violence in many settings and fields within society. Case studies offer the opportunity to study a particular phenomenon, person, or group or institution to gain as much knowledge as possible about it. In particular, symbolic violence is a concept that has been explored in different settings and levels of complexity, from individual to group and societal experiences. For example, in the field of education studies have focused on the experiences of children according to their class level. Paul Connolly and Julie Healy found the level of class, be it upper, middle, or lower, affected children's aspirations for future study and work depending on their awareness of their locality as a determination of their habitus. Children who identified with only their own particular locality were less likely to aspire to live or study in other places. Their limitation in place reflected a limited habitus, and this was seen as symbolic violence through class structure.

In another study of schoolchildren, Kathryn Herr and Gary Anderson found that critical incidents in the classroom could illuminate the class differences and attitudes of teachers toward their students. Effects on students could be symbolically and physically violent, as seen through students' interactions with each other in and outside the classroom. Low expectations on the part of the school for children of color and lower economic means resulted in students reflecting this habitus in low expectations for themselves. Yet some teachers resisted this status quo of class structure within the school and created a learning environment that was open and accepting of students as they were. The critical incident approach was also used by Herr to explore the symbolic violence that existed in a university faculty of education. Newer faculty were treated as less worthy than tenured faculty, especially if they expressed views that were different from those of the tenured faculty group. This resulted in discriminatory practices, which were ignored by the dean until it was too late to address them. The violated faculty left or transferred to other departments to avoid the treatment they had experienced.

In other sociological case studies the concept of symbolic violence has been used to analyze issues of gender. Patricia McKeever and Karen-Lee Miller compared former studies of mothers of children with disabilities and their experiences of the healthcare system. Mothers felt the need to fit the mold of behavior and status given to them by

the healthcare system and society, in order to get what they needed for their children. Their association with children with disabilities gave them additional handicaps in a system that prided itself on intellectual superiority and control over knowledge of children's needs. Angela McRobbie analyzed the symbolic violence done to lower-class women in popular "makeover" television shows, illustrating how the experts on the shows pushed their values on less "able" women, pointing out the differences in class that are to be seen in one's vocabulary, behavior, and appearance. This analysis pointed to the changes in society that may be driving competition among women of different classes. An analysis of symbolic violence in a case can expose both societal forces and their effects on individuals.

In a similar commentary on societal changes reflected in individual cases, Stephen Conway compared parents' choices of schools for their children as a reflection of the unspoken class differences, based on generations of differences in cultural, economic, educational, and symbolic capital. Parents in British schools had to decide where to send their children to school, and options officially included private versus public, vocational versus academic, residential versus day school, and others. Yet parents often made choices based on their own experiences, their perceived abilities to oversee their children's education, the methods by which schools recommended students, and other facets of habitus. These were not really matters of choice but showed that parents operated according to their acceptance of the status quo. Although they seemed to have power of choice, they in fact did not, because they were influenced greatly by the staff of schools and by fellow parents, as well as by their own financial means and limited knowledge of their rights and options. Symbolic violence has been employed in many areas of study, including mathematical reasoning, multicultural teacher education, doctors and nurses' experiences in the health field, and even literary awards and novels.

Critical Summary

The common thread in all of the studies mentioned in this entry has been the effect of societal norms on marginalized groups, in keeping these groups

marginalized and resisting radical changes in social structure. Changes in social structure have taken place. However, in keeping with Bourdieu's perspective there is always a social structure of some sort. The media, education, and other fields of society help to maintain these structures, by making individuals feel that this is the way it should be. They adapt to conform to these values and social expectations. Some of these studies call for greater awareness and emancipation from negative societal norms and symbolic violence. Awareness on the part of both the marginalized and the favored allows for a break in the chain of acceptance of the status quo and recognition that the social order is created by humans and is not part of a natural order. Symbolic violence as a concept will probably continue to help case study researchers approach analysis of power differentials in human interactions and systems. As Pat Thomson described, symbolic violence takes place not only between individual and groups but also in policy development and governmental systems. In exposing the political and social motivations behind social structures, there is hope that awareness and positive action may follow to level the differences in power located between races, genders, economies, and other fields within society.

Carla DiGiorgio

See also Class Analysis; Postmodernism; Power; Structuration

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TEMPORAL BRACKETING

Temporal bracketing is an analytical strategy for dealing with diachronic process data, that is, case study data that are composed of detailed event histories over time. Specifically, the approach involves decomposing time lines into distinct phases where there is continuity in activities within each phase and discontinuity at the frontiers.

Conceptual Overview and Application

The identification of phases might at first sight appear to be a step toward the development of deterministic, life cycle-based process theories composed of a predictable set of stages. Indeed, this may sometimes be the result of using this analytical strategy when phase sequences appear to be similar in content and predictable across multiple cases (e.g., as in Lynn Isabella's study of the phases of interpretation of organizational change). However, this is not the primary purpose or outcome of temporal bracketing. The phases identified using this approach do not necessarily have any particular conceptual significance; instead, the decomposition into time periods is a heuristic device for segmenting the data into comparable units of analysis, enabling the exploration and replication of theoretical ideas. This strategy is particularly useful when it appears that mutual shaping, structuration, feedback loops, and multidirectional causality may be contributing to observed temporal patterns.

The notion of temporal bracketing is in fact derived from Anthony Giddens's *structuration theory*. At the heart of the theory is the idea that the actions of individuals are constrained by social structures but that actions simultaneously reconstitute those structures over time. Because mutual influences are difficult to capture simultaneously, and because changes in structures follow diachronically from action, it makes sense to analyze these interacting dimensions in a sequential fashion by temporarily "bracketing" one of them. Thus, the temporal decomposition of data into time periods enables analysis of how the actions of one period lead to changes in the context that will affect action in subsequent periods.

For example, in a classic study of the mutual relationships between technology and structure, Stephen Barley examined how the scripts underlying interactions between radiologists and radiology technicians during radiology examinations shifted over time with the introduction of new technology. He decomposed his data into phases separated by changes in structural features (in this case, the technology and the people involved) and was able to show that the microlevel interactions taking place during one period contributed to precipitating changes in structure and that, in the next phase, the new structures in turn influenced the new modes of interaction that developed between the radiologists and technicians. These recursive patterns were observed to occur in two different hospital sites, although the number of distinct phases and the precise scripts used in interactions during each phase differed between the sites. Stephen Barley and Pamela Tolbert subsequently generalized this approach to propose a systematic analytic strategy for understanding the recursive links between actions and institutions based on a form of temporal bracketing.

Temporal bracketing was also used by Jean-Louis Denis, Lise Lamothe, and Ann Langley in their studies of strategic change in healthcare organizations. Drawing on five longitudinal case studies, the authors showed how change initiatives during one period had substantive symbolic and political effects that led to modifications in the leadership teams, further altering the shape of change in the future. Similarly, Yves Doz used temporal bracketing to trace through the cycles of learning and re-evaluation in alliance development.

Temporal bracketing may be particularly relevant for analyzing dialectical processes in which competing forces act in opposition to one another and for which the short-term and longer term effects of actions may be different. This is a pattern that can be largely undetectable in more synchronic analyses. Thus, in their healthcare studies Denis, Lamothe, and Langley showed how united leadership teams were initially able to take assertive action that favored change in the short term but that these actions later backfired as their consequences were judged negatively by observers, resulting in the breakdown of leadership teams and new forms of action. In another example, Laura Cardinal, Sim Sitkin, and Chris Long studied the evolution of organizational control over the first 10 years of a company's existence. They showed how managers acted to maintain their control system in balance between formal and informal features, resulting in a dynamic cyclical pattern over time as successive managerial moves aimed at correcting imbalances drove the organization in the opposite direction—potentially stimulating the opposite imbalance. Temporal bracketing contributed to revealing this repetitive dynamic created by the contradictory forces underlying the need for informal and formal control mechanisms.

Critical Summary

Temporal bracketing works by organizing the shapeless mass of longitudinal data from a case study and breaking it down into more homogeneous blocks within which processes have a degree of unity. Researchers can then describe them systematically and in depth, while considering at the same time how context affects the processes occurring in each phase and examining the consequences of these processes for subsequent phases. Ann Langley noted that temporal bracketing also generates variety within a single case study by creating embedded units of analysis, offering analytical power that may be missing in more holistic treatments.

However, a condition for the application of this analytic strategy is that there are clear break points in the temporal data that enable the constitution of comparative units of analysis. In organizationallevel research major changes in key people, organizational structures, and technologies are likely to serve as significant break points. Another issue concerns the role of endogenous and exogenous processes in separating out key periods. Although processes may sometimes have their own internal logic, with events in one period creating the conditions that lead to discontinuities affecting later periods (as in structuration processes), exogenous events beyond the control of the organization may also create discontinuities. Different types of theoretical models may be relevant to these two cases.

In summary, temporal bracketing is a particularly useful analytical strategy in processual case research because it allows the structured investigation of dynamic elements within complex temporally organized data sets. Further discussion of this and other strategies for analyzing processual case study data can be found in Ann Langley's article "Strategies for Theorizing From Process Data," and Marshall Scott Poole, Andrew Van de Ven, Kevin Dooley, and Michael Holmes's book Organizational Change and Innovation Processes: Theory and Methods for Research.

Ann Langley

See also Dialectical Materialism; Juncture; Process Tracing; Processual Case Research; Structuration

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TERROIR

Terroir is a French word, derived from the Latin territorium, meaning "territory." It long retained its original meaning of "territory" (ground, country, region) but developed a more specialized connotation as "location" or "soil," considered in terms of its ability to support specific types of agricultural production. It is strongly associated with regional foods, such as tea or coffee, and viniculture (winemaking) in particular. Reference to wine is redolent in the use of the term, as in the following evocative expressions: goût du terroir (tasting of terroir) or sentir le terroir (smelling of terroir).

More recently, the word has been used as a synonym for origin to evoke a sense of place and combine implicit reference to distinctive attributes of locality and terrain. It denotes the notion that a rural region must be considered as shaping the distinctive characteristics of its inhabitants, language, or local culture, including the local accent (accent du terroir). This usage associates social

and cultural practice and place with connotations of roots and origin, tradition, and heritage. In addition to agricultural, literary, and philosophical usages, the term *terroir* can also be used in case study to direct attention to the relevance of the material environment in shaping human research in that it also has application to case study research.

Conceptual Overview and Discussion

Widely used in viniculture and viticulture (grape cultivation), *terroir* refers to the distinctive elements of a region that render its wines unique, distinctive, and typical of a place. In the winemaking context, *terroir* results from a combination of ecological, geological, historical, and human factors.

Strict agronomic definitions of terroir exclusively refer to the natural elements that contribute to shape the ecology of wine (innate or matter terroir), including climate and geology (topography, soil, and subsoil type). The interactions between climate and vineyard can happen at different levels: macroclimate of a wine region, mesoclimate of a subsection of a region (or of an appellation, discussed later in this entry), and individual microclimate of a particular vineyard or row of grapevine. Topography (the features of the natural landscape e.g., mountains, hills, valleys) interacts with climate, affecting the altitude and sun exposure as well as the soil geology of vineyards locations. Elements of soil refers to the chemical composition (nutrients and minerals) as well as physical characteristics (heat retention or water drainage properties) that influence soil fertility and the nutrition and growth of vine plants. Innate or matter terroir combines the material and chemical characteristics of the physical environment in which the grapes are grown.

The expression *terroir effect* refers to the intimate relationship between soil and subsoil, grape and winegrowing, and winemaking savoir-faire and practices that can influence the expression of the material characteristics of *terroir* in wine (choice of grape varieties, pruning, irrigation, selection of the time of harvest, conditions of fermentation). Sometimes literarily referred as "a taste of the soil" on a material level, *terroir effect* shows how minor variations in the material environment

can produce rich and complex variations in production. Location, slope, humidity, soil acidity, the interactions of biological agents at the molecular level, changes in timing and length of sun exposure, the presence of scents in the atmosphere, or boulders in the soil can together profoundly affect the taste of the wine in the glass as the product of an extremely complex and adaptive natural system. There is, however, no conclusive proof of the material effects of the chemical composition of the soil, for example, so the importance of *terroir* remains a subject of debate and even controversy.

Historically, the concept has been extended considerably from its use in viniculture. Space terroir refers to political and cultural aspects of locality and regions, place, land, and territory. For instance, the notion of regional cuisine (or specialities) emerged in France after the 1789 revolution with the administrative delimitation of local diversities, partly as a political expression of cultural differences: local versus national or rural versus urban. Cultural practices in local and rural spaces have subsequently been historically constructed in terms of heritage, tradition, or knowledge of the past by intellectual elites in the context of recognizing regionalist feelings or promoting local traditions as a tool for achieving sustainable rural development. By extension, reference to terroir is now widely used commercially to market brand identity for gourmet foodstuffs (wine, cheese, oil, meat products, nuts, vegetables, or regional culinary specialties), connoting tradition, locality, distinctiveness, or quality more generally.

The concept of terroir is fundamental to the wine industries of Old World countries, including France, Spain, Italy, and Germany. The French legal definition of local origine, Appellation d'Origine Controllee, the oldest and strictest of the European label of origin system, was established in 1935 to translate *terroir*. This system authenticates origin rather than grape variety in quality winemaking with the purpose of guaranteeing the uniqueness of wines from an area, officially sanctioning a combination of certain vineyard sites and grape varieties to create a particular geographically distinct wine. Each appellation acts as a selfregulated system of social practices that ensures quality winemaking governance in combining local winegrowers associations (syndicates) and the National Institute of Origin Appellations

(INAO, in French). It controls several aspects of winemaking, including the delimitation of the growing area; grape varieties; yields and harvest period; specification of the alcohol, sugar content, or conditioning format; and yearly blind tasting by a committee of producers.

The appellation system clearly has a political character as well as a quality objective. It helps segment the French wine market by quality and regional character whereby wines compete on the basis of terroir rather than price, and it has protectionist effects. How much and even whether this interpretation of terroir should influence the marketplace has been very much debated in the wine industry. Advocates of the New World style of wines emphasize modern scientific techniques and the advantages of producing less complex wines geared toward customers' existing tastes and demands. If one considers this as an allegory for case study research, it is clear that the detailed microfocus of terroir is equivalent to intensively emic methodologies, whereas the New World style, which often incorporates multiple methods, is more akin to the etic approach, concentrating on translatability of information and the development of sophisticated tools and methodologies to achieve this most effectively.

Terroir has also been understood within literature and philosophy to emphasize regionalism in authorship, usually denoting conservatism and a celebration of rural or traditional wisdom and cultural roots. However, Gilles Deleuze and Félix Guattari offer an alternative understanding of the concept in terms of territory that becomes disassociated from a physical origin. Terroirs are how concepts and representations—capital, words, things—are culturally realized and acquire qualities, taste, aroma, or savor. Instead of material sites of cultural origin, they are constructed outcomes of cultural processes of territorialization and deterritorialization. For instance, capital, as an abstract term, needs terroir for its realization in different material and social forms that change across time and place (money, exchange rates, property). For Deleuze and Guattari, being nomadic is not just about moving through landscapes but an intimate movement within and between terroirs, being alive to changing nuance and detail-what Clifford Geertz calls local knowledge. Michel de Certeau introduces the idea of *discursive terroir*, which roughly corresponds to indexical and untranslatable elements in a discourse and is realized in his rich and evocative French, playing with words, cultural allusions, and idiosyncratic expressions. Terroir can thus have significant symbolic and discursive connotations.

Application

Relating both to literary-philosophical usages and the Old World-New World productionconsumption controversies described earlier, reference to the concept of terroir can enrich case study research both materially and metaphorically. First, the terroir effect (the material influences of terroir into the character of the wine) might be considered for complex human beings in social systems: What influences from the material environment might combine in unacknowledged but sophisticated ways to influence behaviors? This aspect of case study research, which demands a much deeper consideration of the effects of the material environment, is still largely unacknowledged, with the exception of some branches of cultural anthropology (including the anthropology of food) and actor-network theory. Second, the microfocus of terroir opens up distinctive and more detailed considerations of the symbolic complexity of human beings for ethnography in particular. Complementing ethnomethodology, which has adopted an ultra-microfocus to emphasize technical issues at the expense of the evocation of meaning, the metaphor of terroir insists on the inseparable connectivity between the two. The work of de Certeau noted earlier offers a good example of this in urban ethnography. Terroir as metaphor offers a way of combining the micromaterial and the microsymbolic within a conceptualization of a dynamic and interconnected whole.

Garance Marechal

See also Actor-Network Theory; Ethnomethodology; Thick Description

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Textual Analysis

Textual analysis focuses on the microlevel functions and processes that socially construct reality in and through texts. This view of textual analysis is based on applied linguistics, but textual analysis is and can be applied in different ways across humanities and social sciences. Furthermore, such analysis can focus on different types and amounts of textual data, because it is not fixed to specific units of analysis.

Textual analysis can, however, also be understood in other ways. For example, in grounded theory textual analysis is sometimes used to label a coding technique of textual data, and content analysis also is often paraphrased as textual analysis. Theoretically and methodologically, the major differences in textual analyses relate to the notion of *meaning*. Content analysis sees text (and the choices upon which it is based) as expressions of *content*. In contrast, the linguistically oriented textual analysis presented here treats text (and the choices upon which it is based) as *meaning potential* out of which actual meanings in context arise.

Theoretical and Methodological Basis

Most prevalent linguistic thinking recognizes that language is a system. This is especially the case with the so-called *systemic functional* view of language. The characteristics of this system cannot, however, be understood without considering the

social functions that it has evolved to serve or continues to serve in social life. Thus, structure and use are inseparable in textual analysis. The implication is that although textual analysis focuses on language use, it is anchored in the categories of language structure. In practice, this entails that meanings are interpreted on the basis of linguistic forms that are always considered functional, that is, capable of doing things.

The idea of viewing texts as having meaning potential, in turn, suggests two important simultaneous dimensions for textual analysis. First, because meanings are inscribed in grammar, textual analysis is attached to grammatical features, and it has to draw on grammatical knowledge. Second, because the focus of analysis is on interpreting meanings that are ascribed to particular uses of language (e.g., to a specific text), textual analysis is always pragmatic in nature. It addresses the meanings of Lexical or Grammatical Feature X in Context Y.

Textual analysis uses knowledge of language, and all levels of grammar are potentially informative in doing analysis. There are, however, linguistic structures and features that usually prove more important than others. Textual analysis can focus on a selected few linguistic features or on many features simultaneously.

Starting from a *lexical level*, the lexical meaning relations are important units of textual analysis. These relations inform the analyst about the ways in which the analyzed text relates to social structures as embedded in conceptualization. For example, identifying metaphors means identifying the conceptual relationship between metaphoric expressions and their source domain. Also, various part—whole relations and taxonomies are apt to shed light on meanings in text. In general, considering any word in a text as a lexical choice is often illuminating, because the choices lead to more general meaning potential and thus to discourses that exist prior to the text.

Every text represents actors and participants, which can be displayed in textual analysis by considering the semantics underlying various lexical choices. However, besides lexical level, the *semantic-syntactic interface* is also of utmost importance, because it enables one to analyze action in texts. For example, concepts such as *semantic roles* and *process types* explain the properties of action as

well as the qualities of participants in that action. This knowledge may prove valuable in explaining a particular discourse that is realized in a text. Furthermore, on the semantic–syntactic level, modal expressions such as modal auxiliary verbs, modal adverbs, tense, negation, or mood are often essential in textual analysis because they allow the interpretation of inscribed attitudes, beliefs, and presuppositions in the text.

Finally, above the level of clauses, there are a number of phenomena that may serve as the basis for textual analysis. Many of these phenomena can be grouped under the concept of *cohesion*, which means the ties that hold (or fail to hold) a text together. Closely related to cohesion, a text may be squeezed into *macropropositions*, the relationships of which are examined in general. The applicability of this approach lies in the fact that texts have generic structures, and identifying those structures helps one see the argumentative logic of a particular text.

Application

Social scientists such as organization and management scholars can apply textual analysis to a range of research questions. The key point is that potential texts, as meaning, provide access to the microlevel processes through which meanings are created and social phenomena are constructed. In this sense, textual analysis is always case analysis aimed at analytical generalizations based on carefully selected examples. Thus, textual analysis involves strategic choices concerning theoretical frameworks, the selection of texts, and the exact methods to be used. The key issue with the theoretical framework is to be able to link substantive or formal social theories with linguistic approaches that allow one to focus on the key issues. This does not have to involve sophisticated applications of specific linguistic theories, but it must be based on the understanding of the suitability of specific approaches, for example, rhetorical theory for the analysis of organizational communication. The selection of texts is then the key issue in terms of the research design and the generalizability of the findings. Textual analysis can involve anything from single to large numbers of selected texts. Often, however, the actual analysis tends to focus on specific texts that can be either representative (typical) or revealing (especially important or rich in content). Although textual analysis is by its very nature interpretative, its use also requires an understanding of the exact methods to be used when examining the textual material and choosing what to focus on in these texts.

One exemplar of textual analysis in organization and management studies was provided by Kuronen and colleagues. Their analysis focused on legitimation and naturalization mergers and acquisitions in the financial services sector. Their theoreticomethodological framework was based on the combination of critical discourse analysis, systemic functional grammar theory, and rhetorical structure theory. This framework was used to be able to focus on the key arguments of the textual totality. The authors analyzed a single article published in a Finnish weekly business magazine, which commented on an international merger in financial services. The basis for this selection was that this text represented a typical commentary, the closer analysis of which could reveal specific features that characterize the legitimation and naturalization mergers and acquisitions more generally. The authors examined in detail how linguistic resources worked as meaning-making devices in the text and concluded that the arguments put forth were not frame-breaking but rather tended to confirm existing presuppositions held by the audience. They proposed that this is typical of contemporary sensemaking around mergers and acquisitions, which easily leads to the legitimation and naturalization of these business maneuvers.

Critical Summary

Textual analysis is a useful option in case study research. It provides a platform for careful and creative study of texts that evoke meanings in a particular context. It enables the analyst to locate meanings in texts, for example, by analyzing how language is used to promote specific viewpoints and how it renders these viewpoints legitimate and self-evident while simultaneously downplaying and marginalizing alternative ones. However, textual analysis should not be taken lightly. It is crucial that the analyst argue coherently why textual analysis should fit the particular research setting and the phenomenon under study. Also, the particular choices the analyst makes along the way

(e.g., what linguistic features of texts are focused on) must always be accounted for.

Pekka Pälli, Janne Tienari, and Eero Vaara

See also Critical Discourse Analysis

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THEMATIC ANALYSIS

Thematic analysis is a systematic approach to the analysis of qualitative data that involves identifying themes or patterns of cultural meaning; coding

and classifying data, usually textual, according to themes; and interpreting the resulting thematic structures by seeking commonalties, relationships, overarching patterns, theoretical constructs, or explanatory principles. Thematic analysis is not particular to any one research method but is used by scholars across many fields and disciplines.

Conceptual Overview and Discussion

Although widely used, thematic analysis generally has not been well described. It is not a research method in itself but rather an analytic approach and synthesizing strategy used as part of the meaning-making process of many methods, including case study research. Richard Boyatzis describes five purposes of thematic analysis: it is a means (1) of seeing, (2) of finding relationships, (3) of analyzing, (4) of systematically observing a case, and (5) of quantifying qualitative data. As a sense-making approach, thematic analysis is a tactic for reducing and managing large volumes of data without losing the context, for getting close to or immersing oneself in the data, for organizing and summarizing, and for focusing the interpretation.

A wide range of data sources may be used in a thematic analysis, including interview transcripts, field notes, information written by participants (e.g., diaries or journals), research memos, historical or site documents, photographs, drawings, maps, digital audio files, and video files. Historically, researchers have applied thematic analysis primarily to textual data and have transformed audio or video records to text via transcription prior to analyzing for themes. However, some computerassisted qualitative data analysis software now offers the possibility of coding themes directly within digital audio and video files. NVIVO is an example of computer-assisted qualitative data analysis software specifically designed for thematic analysis of qualitative data, with theory-building capabilities. The features of computer-assisted database management, including coding, linking, searching, and model building, facilitate rigorous and sophisticated thematic analyses, even for large, unstructured data sets and across sites and research teams.

The basic analytic strategy used in thematic analysis is *coding*, a process of closely inspecting text to look for recurrent themes, topics, or relationships, and marking similar passages with a

code or label to categorize them for later retrieval and theory-building. Identification of themes can be done deductively, on the basis of theoretical constructs that the case study researcher wishes to investigate. Researchers might use their research questions, interview questions, or theory-derived categories as a start list of a priori themes for coding data documents, an approach that can facilitate within- or cross-case comparisons.

However, an inductive approach to coding is more typical of thematic analysis. Themes emerge from and are grounded in the data. Through a process of noticing patterns, attending to how participants label events, defining emergent themes, constantly comparing data against codes and categories, cycling back through documents to revise coding, recording interpretive insights in research memos, and developing data displays that reveal overarching patterns, the researcher builds a complex exploratory, descriptive, or explanatory case analysis grounded in the particulars of the case or multiple cases. Inductive thematic analysis avoids the rigidity and premature closure that are risks of a deductive approach.

Application

The examples that follow have been chosen to illustrate the breadth of application of thematic analysis. As well, the authors of these studies have described their analytic procedures explicitly.

Kenneth Ponsford and Judith Lapadat conducted a multiple-case study to describe the achievement perspectives of academically capable students who were failing high school in rural Canada. They used an adaptation of grounded theory, coding transcripts from open-ended interviews descriptively and inductively to categorize students' perspectives. Cross-case comparison yielded three overarching patterns that accounted for achievement perspectives: (1) academic factors (e.g., teacher as support, subject difficulty, variety in presentation), (2) social/family factors (e.g., family expectations, school-parent contact), and (3) peer factors (e.g., increased freedom, popularity). They derived suggestions for modifying school practices to provide better student support.

Jennifer Fereday and Eimear Muir-Cochrane used systematic thematic analysis with a hybrid of deductive and inductive coding, following a phenomenological approach, to explore the role of performance feedback on self-assessment in nursing in Australia. Their data included focus group transcripts and policy documents. This detailed account of stages of data coding and theme identification provides an exemplar of rigor in thematic analysis.

Sue Ziebland and Ann McPherson have described how thematic analysis is used to analyze cases in the medical database DIPEx, a compilation of patient interviews about experiences of health and illness in the United Kingdom. The database includes 40 to 50 transcripts of openended followed by semistructured interviews of patients, along with audio and video clips, for each type of illness, such as testicular cancer. The database and thematic analyses of patient perspectives are widely used for medical education.

Critical Summary

Researchers at the positivist end of the paradigmatic continuum may claim that because there is flexibility in how the step-by-step process of thematic analysis is applied the approach is seldom explained clearly enough for unambiguous replication. As well, the moment of creative insight that yields pattern recognition and emergent themes that is, induction—resists formulaic description. Researchers at the interpretivist end of the continuum may argue that the very process of analysis itself—breaking texts into parts to reduce, sort, and label them—fractures the coherence and contextuality of narratives that constitute the data. Despite these critiques, thematic analysis is widely used as an analytic approach across methods and paradigms by case study researchers, qualitative researchers in general, and scholars of the humanities because of its power to yield insightful interpretations that are contextually grounded.

Judith C. Lapadat

See also Coding: Axial Coding; Coding: Open Coding; Coding: Selective Coding; Computer-Based Analysis of Qualitative Data: ATLAS/ti; Computer-Based Analysis of Qualitative Data: CAITA; Computer-Based Analysis of Qualitative Data: MAXQDA 2007; Computer-Based Analysis of Qualitative Data: NVIVO; Grounded Theory; Inductivism; Interpretivism; Multiple-Case Designs; Phenomenology; Sensemaking

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THEORETICAL SATURATION

Theoretical saturation is an evaluative term intended to reflect the quality of a piece of research. Intended to reflect an aspect of thoroughness or completeness for the project, theoretical saturation involves a judgment of the adequacy of the empirical materials and subsequent analyses for a research project. This includes an assessment of the sufficiency of the approach to address the research question, a sense that no new information is forthcoming from the empirical materials, and a reflexive judgment that the emergent theory is representative and comprehensive enough to warrant communication. Research reports for projects should provide sufficient detail for this assessment piece, because it is used to address the quality of the research. Researchers strive to achieve theoretical saturation in their projects when they adopt approaches designed to generate theory from their empirical work. As such, theoretical saturation is more aligned with epistemological approaches that draw from realist or critical realist philosophies.

Conceptual Overview and Discussion

Theoretical saturation is a speculative construct. A researcher can never be certain that theoretical saturation has been achieved. Researchers can ensure that they have rigorously and systematically explored the research question as comprehensively as possible. They can illustrate their method and analyses, and they can transparently report how the question was informed by the data, including how their understanding of the construct shifted with their analyses through reflexivity. At critical moments, the researcher decides that the material collected, and the theory organizing that material, are not shifting or adding new insights, and the decision that the project is complete and ready for dissemination is made. This is the moment when the researcher believes that theoretical saturation has been approximated. In the end, the judgment of the completeness of the project rests with the audiences who reflect on the process and the theory inducted from that process to concur or disagree as to the theoretical saturation of the research.

Theoretical saturation takes on slightly different meanings according to the type of case study undertaken. A good theory is one that organizes information in ways that provide explanation to other cases. Theory generation is about trying to make a bigger story from particular peculiarities. The idiosyncratic writ large is the theorist's task. The paradox is that no theory can translate onto the individual; however, there are elements of the particular in the universal. The balance is between the individual and the populace. For intrinsic cases, which are studied for their own particular idiosyncrasy, theoretical saturation is approached from the sense of finding as complete a representation of the case as possible. Because intrinsic case studies are pursued for their own sake, saturation would be reached at the point in the research process at which information about the case started to overlap and become repetitive. For instrumental case studies, which are examined for their potential to enhance understanding of an issue or phenomenon, theoretical saturation becomes somewhat more challenging to judge. This is because the actual case is less emphasized than the theoretical insight it might offer toward a construct or concept. In this case, saturation might be inferred when no further

theorizing results from the information being collected. To this extent, intrinsic case studies are less likely to be concerned about theoretical significance in their judgments about saturation; instead, they are more likely to be the province of purposeful case studies that are systematically examined so that they can develop or extend theory. When several cases are selected to accomplish this instrumental goal, the study falls into the category of the multiple case study. In this typology, theoretical saturation becomes somewhat easier to judge, because the addition of new cases does not extend the theory in novel ways; instead, new cases can be encapsulated within the theory that has been created through the previous cases.

Theoretical saturation is an important concept to researchers whose goal is to develop theoretical knowledge that has applicability beyond their empirical materials. The concept enables researchers to express confidence that the research was thorough and ready for dissemination. Without theoretical saturation, researchers' findings could be described as based on thin data and would likely be rejected by peer reviewed journals. Audiences would not have confidence in the findings of research that did not have some indication of the rigor of data collection and analyses.

Often, in the midst of projects, researchers are invited to talk about their preliminary findings. This might be done for the purposes of getting feedback on their results so far. In these situations, the concept of theoretical saturation is an important one to bring to the presentation. In explaining the process and findings so far and inquiring into the sufficiency of the data, valuable feedback can be incorporated into the project to help the researcher assess theoretical saturation. Of course, preliminary findings should always be bracketed as such with the caveat that theoretical saturation has not yet been satisfied.

Application

Theoretical saturation can be divided into several layers of judgment. These layers occur at several critical moments in the research process. Evaluating whether a project has achieved an approximation to saturation typically will begin with an assessment of the reported methods. What level of sampling has been used to create

the case study? Have the relevant stakeholders been thoroughly sampled? For example, a complete set of stakeholders for a school case study could include students; parents; teachers; school administrators; school staff; various officials, including education ministries; local schoolaffiliated organizations, such as home and school groups; co-op programs; health promotion teams; auxiliary programs; or corporate sponsors. With the school example, the project researchers may wish to include the built environment into their comprehensive approach with an assessment of the internal and external appearance of the school and possibly its location within the community and proximity to other significant influences.

The next layer would assess the kind of empirical materials that were collected from each of these stakeholder groups. For example, assessing the thoroughness of the student-level data would include evaluation of the breadth as well as the depth of the empirical materials. Issues of breadth could include a description of which students contributed and an analysis of how participants may differ from nonparticipants. Depth of the empirical materials could address the adequacy of the materials to reflect students' experiences. For example, are interviews rich in detail? For each stakeholder group a similar set of breadth and depth questions can be assessed with a view on obtaining a comprehensive set of empirical materials that will reflect that group's perspectives.

Every project must operate between the ideal and the possible. Feasible projects that end up with credible results start with a broad ideal scope in planning the approach. The resources will be finite, and judgments will have to be made about inclusion and exclusion of various empirical materials. For example, given time and resources, the case study team may decide they pursue an in-depth aspect of the topic under study and will thus focus on a select subsample of possible stakeholders. Clarity in the research question is crucial to planning a thorough project that will have the possibility of saturation within the resource constraints of the team. Resources must consider not only the financial input but also the time available for stakeholders to engage in the project.

Confidence in the saturation of the project is also reflected in the rigor of the analyses of the empirical materials. An iterative approach to analysis that reports on various aspects of triangulation in the process and how the understanding of the case deepened over each iteration is helpful in building credibility into the report.

The research report needs to include a reflexive description of the researchers, because theoretical saturation is first and foremost a judgment call by the researcher or research team. The audience of the research will judge the credibility of the team to decide whether saturation has been achieved.

Critical Summary

Theoretical saturation is about the confidence that a research project offers a credible representation of the entity it purports to study. This confidence is reflected in the composition of the research team, their approach to the case, their clarity of communication about their research process, and their reflexive reporting about their findings. Depending upon a theorist's epistemological orientation, the concept of saturation may be deemed irrelevant. The notion of saturation is not applicable to postmodern theorists, because it is meant to represent a construct of completeness. Postmodern projects reject this representational essentialism. Saturation reflects analytical foci that draw more from realist orientations than radical relativist ones.

Colleen MacQuarrie

See also Closure; Complexity; Depth of Data; Double Hermeneutic; Generalizability; Iterative; Underdetermination

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THEORY, ROLE OF

The word theory has many different meanings in different contexts. The concept is often used as a kind of covering label for many different features of research, from the very abstract to the relatively specific and concrete. The most abstract level of theory in social science can be called metatheory. George Ritzer has elucidated three possible subtypes of metatheory based on the goals the thinker wishes to attain: (1) deeper understanding, (2) prelude to further development, and (3) overarching perspective. Many writers think of theory as limited to less philosophical goals. Often, theory is defined as a set of interrelated hypotheses or propositions, but that definition is too positivistic for many interpretive, qualitative researchers, especially those who emphasize inductive approaches like grounded theory. Some even use the word theory to mean a specific hypothesis or very restricted set of tentative, abductive hypotheses.

Because of these varied usages, it is difficult to generalize about the role of theory in general or even in case study research. It is safe to say that there are a range of opinions concerning the role of theory in case study research. Some scholars in the arts and humanities wish to reject the notion of "theory"—in particular, postmodern theory altogether, but the use of the term often sidesteps philosophy of social science approaches and involves more of a critique of a specific theory than of theory in general. Few contemporary writers accept such premodern "sciences" as astrology, alchemy, palmistry, and geomancy, yet a complete rejection of modern and postmodern theory would require one to make no such distinctions among premodern, modern, and postmodern approaches given that all would be rejected. One's theory is intimately connected to the kinds of research regarded as fruitful.

Conceptual Overview and Discussion

There is a deep ambiguity in the use of the word *methodology*. It can refer not only to techniques for carrying out a specific kind of study (e.g., openended vs. closed-ended survey questionnaires) but also to the broader *logic of method*, which is an aspect of theory. Theory and methodology (in the

more abstract sense) go hand in hand. Most case study researchers emphasize qualitative techniques such as participant observation and open-ended interviewing, but there is also a more quantitative stream, as in content analysis. Some social scientists believe that all single cases should be studied inductively. Many sociologists call that approach grounded theory. The word theory in the expression grounded theory refers to tentative conclusions reached on the basis of very thorough investigation of all details of a specific case. Charles Sanders Peirce called this abduction. Once that case has been studied to the point at which no new information seems to be available, the case study is finished. Many grounded theorists reject the notion of the hypothetico-deductive method (HDM) as a methodology or theory of method. There may not even be much of an attempt to compare one case with another very similar case. For example, a qualitative study of one community may lead to grounded theory concerning that specific community, but the researcher may not even attempt to generalize to other communities in the same geographic area or cultural setting.

On the other hand, many social scientists do believe in the continued HDM for case study research, even though case studies are not usually associated primarily with a positivist approach. The relevance of the HDM in an interpretive approach relates to the way in which hypotheses can be deduced from an interpretive set of generalizations that constitute a recognized theory. Such a theory is an interrelated set of propositions from which hypotheses can be deduced. Some theorists view theory as encompassing metatheoretical statements concerning epistemology and ontology. Such philosophical statements can be called *meta*paradigmatic. The unity-of-science thesis is held by scholars who emphasize the similarities between the so-called "soft" and "hard" sciences. For example, the case study approach is often used in integrated biology and ecology in ways that are not appreciably different from case studies in sociology or anthropology.

Application

Fuzzy-Set Social Science

Charles Ragin has argued that we need to incorporate aspects of "fuzzy set" theory into social

science. The conceptualization of "fuzzy sets" transformed the assumption that all sets can be considered "crisp." The key idea is that membership in a set is not always based on an Aristotelian notion of "either/or" logic and may involve "degrees of membership." The idea has been utilized by Charles C. Ragin in order to sharpen both quantitative and qualitative tools in social sciences and applies directly to comparative case studies in situations where generalizations are being made about a set of cases or various kinds of what Max Weber calls *ideal type models*. He advocated studying cases as "configurations" and emphasizing diversity in the interpretation of such cases, whether a singular case or several cases. The contextual situation has a great deal of impact on the ways in which variables should be interpreted. Different situations alter the relationships of factors. The meaning of any statement or "score" is shaped by the historical situation or process under investigation. Every generalization needs to be anchored in a specific time and place, or a set of times and places. Introductory textbooks, for example, often make generalizations that apply to the United States since World War II but that do not apply to the United States in the 18th or 19th centuries and that do not summarize the situation in most countries today or historically. A comparativehistorical sociology is contextual but nevertheless allows for careful generalizations. There are relatively few truly nomothetic laws in social science, and there are surprisingly few such laws in many of the life sciences, such as ecology. In an ecological analysis of a swamp, different factors come into play than in a similar study of a field high in the mountains. Biology, like sociology and other social sciences, is largely contextual. Max Weber emphasized this point in his theoretical work and pointed to the "idealized" nature of many generalizations. Many theories are generalized statements that need to be further investigated for specific cases rather than statements of universal laws.

Even in the so-called hard sciences there are few real laws that can be said to be true for all time and all space. Cosmologists discovered the vastness of the universe only in the early 20th century. There are very few categories that are firmly fixed and unlikely to be modified through further empirical findings and theoretical analyses.

Heuristic Postmodern Theory

Postmodernist theory is heuristic; it has led, for example, to a re-examination of classical and modern thinkers. That re-analysis of received texts has led to fruitful interpretive analysis of specific cases. The claim that it is possible to move beyond foundations is really an attempt to think through implicit assumptions. This leads to interesting theoretical problems. For example, the reading of G. W. F. Hegel's works is considered by many to be quite different after they have read Jacques Derrida's seminal work. Yet it is possible to reread Hegel on the basis of Derrida's exegetical hermeneutic principles. Derrida's notion of deconstruction is not so much a technique as a theory of interpretation of specific cases. To deconstruct is not to destroy or deny but to make explicit the implicit axioms and contrasts. When one contrasts Hegel with poet Jean Genet, aspects of Hegel's theory come out more forcefully. Ambiguities become a basis for further comprehension rather than merely points that should be skipped entirely. The startling contrast provides for a re-examination of strongly held convictions. Some analytical philosophers at British universities feel that such playfulness is merely a trick and that Derrida is a charlatan. If, however, it is taken as serious theory in the guise of playful rhetoric then it has many implications for case study research. When we interpret any situation or process, scene, or event we do not come to it merely as a completely neutral observer. We are not from some other galaxy. Even if we were, we would still bring some kind of theoretical assumptions to any observations or participant observations we might make. The movie E.T. illustrates that quite well; the extraterrestrial is far from neutral. The attempt in philosopher Edmund Husserl's phenomenology to bracket all assumptions is bound to be an ideal goal. Even the most basic description of phenomena, such as color, is theory laden.

Critical Summary

The relationship between theory and practice is often debated. When it comes to policy decisions and implementation there is often a reluctance to move beyond the single case. A good case study of a specific phenomenon is frequently not considered to be generalizable to any other cases. At times,

however, the resistance to transferability is more a matter of political obstructionism than scientific skepticism. A distinction is often made between practice as a kind of reformist effort at administrative change and praxis as a fundamental transformation. Theories concerning practice have been keenly debated in recent years. A neo-Marxist and feminist praxis is not necessarily equivalent to such reformist activities as social work, administration, and public health nursing. Immanuel Kant pointed out that there is nothing as practical as a good theory.

J. I. (Hans) Bakker

See also Epistemology; Grounded Theory; Intepretivism; Ontology; Phenomenology

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THEORY-BUILDING WITH CASES

Theory-building with cases comprises (a) formulating new propositions that emerge from the empiri-

cal evidence in a sample of cases and (b) testing them in the same sample. The main difference with most other forms of generating new propositions (e.g., analyzing the theoretical literature, brainstorming) is its empirical character. The empirical character of theory-building with cases is the main difference between this process and most other forms of generating new propositions (e.g., analyzing the theoretical literature, brainstorming). In this empirical process, theoretical formulations are accepted only when they are confirmed in a test in the sample from which the proposition was built. Thus such theory-building differs from other forms of discovering new propositions in empirical evidence (e.g., in "exploratory" research).

Conceptual Overview and Discussion

A theory-building study always requires a sample of cases, because this is needed for the test of the new probabilistic propositions. Each new proposition that is built needs to be tested in other cases. The Yin-Eisenhardt approach is only one influential and frequently cited approach to theory-building with cases in the literature. This entry first describes and evaluates this approach and then discusses and illustrates a revision of it. For illustrative purposes, an example is used that is taken from another publication by Kathleen Eisenhardt, in which she builds a number of new propositions concerning the determinants and effects of fast strategic decision making in firms in high-velocity environments based on empirical evidence collected in eight microcomputer firms. The example used here is the following proposition: "The greater the use of real-time information, the greater the speed of the strategic decision process."

Application

The Yin-Eisenhardt Approach

The core of the Yin–Eisenhardt approach to theory-building with cases consists of three steps: (1) within-case analysis, (2) cross-case pattern search, and (3) replication.

1. Within-Case Analysis. Within-case analysis typically involves detailed case study write-ups for each site. These write-ups are often simply

pure descriptions. The overall idea is to become intimately familiar with each case as a standalone entity. Because the unit of analysis in the study of decision making in microcomputer firms is the decision, the case study write-up in this study was a "decision story" that was developed by combining the collected data into a time line that included all events relevant to the decision.

2. Cross-Case Pattern Search. A number of tactics can be used in this crucial step in which the theory (at least its building blocks, propositions) is actually built. One tactic is to select categories or dimensions and then to look for within-group similarities coupled with intergroup differences. A second tactic is to select pairs of cases and then to list the similarities and differences between each pair. Overall, the idea behind these (and other) cross-case searching tactics is to force investigators to go beyond initial impressions. Consider the example of a pair of cases presented in Table 1.

Starting from the evidence in the decision stories generated in the within-case analysis, a number of indicators of real-time information use were developed, such as (a) the presence of a vice president for finance, (b) the number and kind of performance measures and targets that are reviewed regularly, and (c) the number of meetings regularly scheduled to review current operations. Table 1 presents the scores on these indicators as well as the decision duration for two cases. It is not difficult to see how a proposition such as "The greater the use of real-time information, the greater the speed of the strategic decision process" could emerge from the evidence in this pair of cases and how the researcher's belief in this proposition could be reinforced by evidence from other pairs of cases showing a similar pattern.

3. Replication. In the Yin-Eisenhardt approach it is considered necessary to verify that the emergent propositions fit with the evidence in each case. This verification process is described as similar to that in traditional hypothesis testing research. The key difference is that each hypothesis is examined for each case, not for the aggregate cases. Thus, the underlying logic is replication, that is, the logic of treating a series of cases as a series of experiments, with each case serving to confirm or disconfirm the hypotheses. Replication is the core of the Yin-Eisenhardt approach, and hence most studies that claim to have applied this approach state that replication took place. There is, however, no published example of an actual case of replication. A probable reason for this absence is the fact that replication often is not possible. Consider again the proposition "The greater the use of real-time information, the greater the speed of the strategic decision process." This proposition states that a *change* or a *difference* in the use of real-time information is associated with a change or a difference in decision speed. The correctness of this proposition cannot be examined for each separate case because it is not a proposition about the characteristics of single cases. The underlying problem is that no distinction is made between (a) propositions about characteristics of single cases and (b) propositions about differences between cases. The Yin-Eisenhardt approach needs to be amended for this reason. The alternative approach, discussed later in this entry, retains the very important idea that theory-building must entail a final, third, step: testing (yes we can call it testing). The main difference with the Yin-Eisenhardt approach is that it distinguishes different types of proposition from the outset.

Table I Real-time information and decision duration: Two cases

Firm	Vice President for Finance?	Number of Routine Quantative Targets	Number of Weekly Operations Meetings	Decision Duration in Months
Zap	Yes	6+	3	3
Presidential	No	3	0	18

Source: Eisenhardt, K. M. (1989). Making fast strategic decisions in high-velocity environments. Academy of Management Journal, 12, 543–576, Tables 2 and 3.

Revised Approach

The revised approach to theory-building with cases entails the same three steps as in the Yin–Eisenhardt approach: (1) within-case analysis, (2) cross-case pattern search, and (3) testing.

- 1. Within-Case Analysis. Within-case analysis boils down to what is called measurement in other research strategies. Evidence is collected about relevant variables, and this evidence is transformed into scores that indicate relevant levels of the values of these variables, so scores can be compared between cases. These scores can be presented in a data matrix (as presented in Table 2). A data matrix is a list of scores of the independent and dependent variables for each single case. These data can be qualitative or quantitative and can be obtained by collecting new data or by extracting them from existing databases.
- 2. Cross-Case Pattern Search. It is recommended that researchers start the process of discovering relations in a data matrix with determining whether there is evidence for (a) sufficient conditions (i.e., causes that automatically result in an outcome), next for (b) necessary conditions (i.e., causes that must be present for an outcome to occur), and finally for (c) relations between changes or differences in the values of variables. Methods that can be used for each of these search tactics are described in the following paragraphs, and some of them are

illustrated with recoded data as presented in Table 3 (which is a recoded version of Table 2). This recoding, which requires criteria (not discussed here), is necessary for the discovery of sufficient conditions and of necessary conditions with discrete variables (e.g., variables with only two scores, such as "present" and "absent" or with a limited set of possible values, such as "high," "medium," and "low").

a. Sufficient Condition. A sufficient condition proposition states that a specific value of a causal variable always results in a specific outcome (i.e., a specific value of a dependent variable). The method of finding such conditions in a data matrix consists of ascertaining, for each value of an independent variable that occurs more than once, whether it always is related to the same outcome.

Table 4 (assuming "none observed" as zero for Number of Routine Quantitative Targets) shows that having many (i.e., more than four) targets (occurring four times in the data matrix) is always associated with fast decisions. Hence, the first candidate proposition that is supported by the data matrix is:

Having many (>4) routine quantitative targets is a sufficient condition for fast (≤4 months) decisions.

Having three weekly operations meetings is a sufficient condition for fast (≤4 months) decisions.

Table 5 shows that having three weekly operations meetings (a score that occurs two times in the data matrix) is always associated with decision

Table 2	Real-time	information	and	decision	duration	using	revised	approach
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Firm	Vice President for Finance?	Number of Routine Quantitative Targets	Number of Weekly Operations Meetings	Decision Duration in Months
Triumph	Yes	5+	3	1.5
Forefront	Yes	5+	2	2
Zap	Yes	6+	3	3
Promise	Yes	4+	2	4
Omicron	Yes, but weak	None observed	2	6
Neutron	Yes	None observed	1	12
Alpha	Yes	2	1	12
Presidential	No	3	0	18

Source: Eisenhardt, K. M. (1989). Making fast strategic decisions in high-velocity environments. Academy of Management Journal, 12, 543-576, Tables 2 and 3.

speeds of 4 months or less. Hence, another candidate proposition that is supported by the data matrix is:

b. Necessary Condition. A necessary condition proposition states that an outcome can exist only if a specific value of a causal variable exists. The method of finding such conditions in a data matrix consists of identifying values of the independent variables that always occur if the outcome is present. In the present example, therefore, only cases in which the outcome occurs are used (see Table 6), and in these cases those values of the condition are

identified that occur in all four cases. Three necessary conditions can be identified:

Having a vice president for finance is a necessary condition for fast decisions.

Having many (≥4) routine quantitative targets is a necessary condition for fast decisions.

Having at least two weekly operations meetings is a necessary condition for fast decisions.

Combining the findings regarding necessary and sufficient conditions, a proposition can be

 Table 3
 Real-time information and decision duration: Recoded

Firm	Vice President for Finance?	Number of Routine Quantitative Targets	Number of Weekly Operations Meetings	Decision Speed
Triumph	Yes	Many	3	Fast
Forefront	Yes	Many	2	Fast
Zap	Yes	Many	3	Fast
Promise	Yes	Many	2	Fast
Omicron	Yes, but weak	None observed	2	Medium
Neutron	Yes	None observed	1	Slow
Alpha	Yes	Few	1	Slow
Presidential	No	Few	0	Slow

Source: Eisenhardt, K. M. (1989). Making fast strategic decisions in high-velocity environments. Academy of Management Journal, 12, 543–576, Tables 2 and 3.

Table 4 Sufficiency: Many (>4) routine quantitative targets is sufficient condition for fast decisions

Table 5 Sufficiency: Having three weekly operations meetings is a sufficient condition for fast decisions

Number of Routine Quantitative Targets	Decision Speed	Number of Weekly Operations Meetings	Decision Speed
Many	Fast	3	Fast
Many	Fast	2	Fast
Many	Fast	3	Fast
Many	Fast	2	Fast
None observed	Medium	2	Medium
None observed	Slow	1	Slow
Few	Slow	1	Slow
Few	Slow	0	Slow

Source: Authors. Source: Authors.

formulated about a condition that is both necessary *and* sufficient:

Having many (≥ 4) routine quantitative targets is a necessary and sufficient condition for fast decisions.

c. *Relation*. The main method for discovering continuously increasing or decreasing (linear or more complex) relations is comparing rankings. In Tables 7 and 8, the cases are ranked according to their number of routine quantitative targets and their number of weekly operations meetings, respectively. For these rankings the original scores from Table 2 are used.

The relation that explains the data in Table 7 could be expressed in the following proposition:

The higher the number of routine quantitative targets, the faster the decision.

Table 7 does not show a perfect increase in the "Decision Duration in Months" column. A scatter plot would show two quite separate clusters of four cases each (if "none observed" is recoded as zero). The proposition just given, in which the relation is formulated as a necessary and sufficient condition ("Having many routine quantitative targets is a necessary and sufficient condition for fast decisions") seems a better expression of the relation between the values in the two columns in Table 7.

In Table 8, an almost perfect increase of scores can be observed in the column of the dependent variable, which is a strong ground for building the following proposition:

The higher the number of weekly operations meetings, the faster the decision.

Table 6 Necessary condition

Firm	Vice President for Finance?	Number of Routine Quantative Targets	Number of Weekly Operations Meetings	Decision Speed
Triumph	Yes	Many	3	Fast
Forefront	Yes	Many	2	Fast
Zap	Yes	Many	3	Fast
Promise	Yes	Many	2	Fast

Source: Authors.

Source: Authors.

Note: The identification of values of the independent variables that always occur if the outcome is present.

 Table 7
 Ranking according to number of routine quantitative targets

Number of Routine Quantative Targets	Decision Duration in Months
6+	3
5+	1.5
5+	2
4+	4
3	18
2	12
None observed	6
None observed	12

Table 8 Ranking according to number of weekly operations meetings

Number of Weekly Operations Meetings	Decision Duration in Months
3	1.5
3	3
2	2
2	4
2	6
1	12
1	12
0	18

Source: Authors.

By applying the revised approach to the same data set from which Eisenhardt developed the proposition that is taken here as an example, a number of candidate propositions have been built. Not all are equally useful for the theory. For example, necessary condition propositions can be trivial if the condition is always present. Because all but one firm in this data set, and arguably almost all firms in the theoretical domain, have a vice president for finance, the necessary condition proposition regarding the vice president for finance might be considered trivial. It is possible that only one of the three necessary conditions will appear to be a "real" necessary condition and that the other two just happened to co-occur with that condition in this data set.

If one looks at the list of candidate propositions in this way, two can be selected as likely the most important:

- 1. Having many (≥4) routine quantitative targets is a necessary and sufficient condition for fast decisions.
- 2. The higher the number of weekly operations meetings, the faster the decision.

These two propositions are complementary. The former formulates a necessary condition for fast decisions that also seems to be sufficient for fastness. The latter explains or predicts additional variation in speed within subgroups of fast or slow decision speed. This is a more specific result than was generated by Eisenhardt from the same data. It demonstrates that it is useful to apply the revised methods described here to build propositions.

3. Testing. The propositions that have been built into the cross-case search now must be tested in the data set. Eisenhardt did not build a necessary or sufficient condition proposition. Interestingly, the method of replication as formulated as part of the Yin–Eisenhardt approach (with each case serving to confirm or disconfirm the hypotheses), which is not applicable in building a proposition about relations between differences in values of variables, actually can be applied in the building of a necessary or sufficient condition proposition. A replication would consist of applying the methodology of the theory-testing single case study to each case of the data set.

If the two methodologies described in the Theory-Testing With Cases entry are applied on the two propositions built from Table 2, no rejections will be found.

Critical Summary

The revised approach to theory-building with cases as presented here entails the same three steps as the Yin–Eisenhardt approach. In the first step (withincase analysis), the data matrix with scores of the independent and dependent variables for each case is built. These scores can be quantitative as well as qualitative and can be obtained by collecting new data or by extracting them from existing databases. In the second step (cross-case pattern search), different tactics are applied for discovering different kinds of propositions: sufficient conditions, necessary conditions, and relations. In the third step (testing), the methodology for theory-testing with cases is applied to confirm the fact that the propositions have been built properly.

Tony Hak and Jan Dul

See also Comparative Case Study; Explanation Building; Exploratory Case Study; Replication; Sampling; Theory-Testing With Cases

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THEORY-TESTING WITH CASES

Theory-testing with cases is the process of ascertaining whether the empirical evidence in a case or in a sample of cases either supports or does not support a given theory. There are two methodologies for

theory-testing with cases: (1) testing in a single case (theory-testing single case study) and (2) testing in a sample of cases (theory-testing sample case study). The functional form of the proposition that is tested determines which of these two methodologies should be used.

Conceptual Overview and Discussion

Two Types of Proposition

There are two types of proposition: (1) about characteristics of single cases and (2) about differences between cases.

Propositions About Characteristics of Single Cases

Examples of propositions about characteristics of single cases are *necessary condition* propositions and *sufficient condition* propositions. The presence (or absence) of such a condition can be observed in a single case. Process theory statements are a subtype of necessary condition statements that state that specific sequences of events are necessary for an outcome to occur: "The process outcome is present *only* if the sequence of events X1-X2-X3-and so forth, is present." The *single* case study is the appropriate strategy for the testing this type of proposition.

Propositions About Differences Between Cases

An example of a proposition about differences between cases is a proposition that expresses a linear relationship between an independent and a dependent variable. Such a relationship can be observed only in a population of cases, not in a single case. The *sample* case study is a strategy for testing this type of proposition.

Application

This section discusses the theory-testing single case study and sample case study.

Theory-Testing Single Case Study

Many theories have the form "X results in Y," or "X contributes to Y," or "X affects Y," and so on, in which X is, for example, something that an actor can or cannot do (or a situation or occasion or event that can occur or not occur) and Y is the desired outcome of that action. There are two fundamentally different ways of interpreting such a theoretical

statement. Usually, it is meant as a statement that explains differences between cases in the value of one (dependent) variable, Y, by relating them to differences in the values of another (independent) variable, X: "If there is more X, then there is more Y." Often, however, such a statement is meant to identify X as an important ("critical" or "crucial") condition that should be present in order to make Outcome Y possible. The intended meaning is that Y is very unlikely to occur if X is absent or, in other words, that Y normally is not possible without the presence of X. This is a necessary condition hypothesis ("Y only if X"). The presence of the necessary condition means that the outcome has become possible, but it does not guarantee that the outcome will occur (which would imply that the condition is *sufficient*). The concept of a necessary condition must not be confused with a sufficient condition.

The necessary condition proposition is an important type of theoretical statement. Necessary conditions and their outcomes can have different forms, but often they are *discrete dichotomous* (or dichotomized) variables (i.e., discrete categorical variables with only two possible values, such as present/absent). The condition is a state, an event, or (in process theories) a sequence of events that must be present in order to make the presence of the outcome possible. The implications of a necessary condition can be visualized in Figure 1, in which

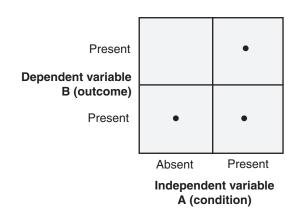


Figure I Theoretical pattern of distribution of cases indicating a necessary condition

Source: Dul, J., & Hak, T. (2008). Case study research methodology in business research (p. 69). Oxford, UK: Butterworth-Heinemann.

Note: Each dot represents a number of cases.

each dot represents a number of cases. The necessary condition is defined by the absence of cases in the cell "X absent/Y present."

Similarly, the implications of a sufficient condition (i.e., the statement that the outcome will be present if the condition is present) are visualized in Figure 2. The sufficient condition is defined by the absence of cases in the cell "X present/Y absent."

Step 1: Formulate the theoretical statement that will be tested. The theoretical statement that is tested in a theory-testing single case study is a proposition about characteristics of single cases. A necessary condition statement is an example of such a proposition. The proposition "X is necessary for Y" is used here as an example.

Step 2: Select an appropriate case. One case of the theoretical domain is selected for the test. Criteria for case selection differ between the independent variable design and the dependent variable design. In the independent variable design, a case is selected in which Y is present (and an expected pattern is formulated about the value of the independent variable X). In the dependent variable design, a case is selected in which X is absent (and an expected pattern is formulated about the dependent variable Y).

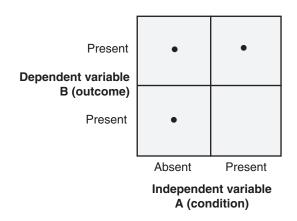


Figure 2 Theoretical pattern of distribution of cases indicating a sufficient condition

Source: Dul, J., & Hak, T. (2008). Case study research methodology in business research (p. 69). Oxford, UK: Butterworth-Heinemann.

Note: Each dot represents a number of cases.

Step 3: Specify the hypothesis for that case. The proposition must be translated into a hypothesis that can be formulated as an expected pattern. In the case in which Outcome Y is present, the expected pattern is "X is present." In the case in which Condition X is absent, the expected pattern is "Y is absent."

Step 4: Measure the relevant variables. Criteria for valid and reliable measurement are the same for any type of research strategy, be it a survey, an experiment, a case study, or another theory-testing research strategy. In the present example, measurement entails ascertaining whether X is present or absent or ascertaining whether Y is present or absent. The result of this measurement is the observed pattern.

Step 5: Test the hypothesis. Testing consists of comparing the observed pattern with the expected pattern. In the present example, testing consists of determining whether X is present (in the independent variable design) or whether Y is absent (in the dependent variable design).

Step 6: Formulate the test result. The test result is either a disconfirmation or a confirmation of the hypothesis. In the present example, the hypothesis is disconfirmed if X is absent (in the independent variable design) or if Y is present (in the dependent variable design).

Step 7: Formulate the implications of the test result for the theory. Conclusions about the robustness of a theoretical statement cannot be drawn on the basis of just one test, only after a series of tests. Hence, discussing the implications of a test result always implies comparing the result with those of earlier tests in a series of replications.

The procedure for testing a sufficient condition proposition follows the same logic. The differences are that other cases must be selected for the test and that, hence, other expected patterns are formulated. In the independent variable design a case is selected in which Y is absent and the expected pattern is that X is absent as well. In the dependent variable design, a case is selected in

which X is present and the expected pattern is that Y is present as well.

A proposition about a necessary or sufficient condition should ideally be tested in an experiment. For instance, a sufficient condition proposition ("X will always result in Y") should preferably be tested by an experiment in which (a) a case without X and Y is selected, (b) X is experimentally introduced, and (c) one observes whether Y occurs. A necessary condition proposition should preferably be tested by an experiment in which (a) a case with X and Y is selected, (b) X is removed, and (c) one observes whether Y disappears. The occurrence of a predicted change in Y after a change in X (the "treatment") can be interpreted as a confirmation of the hypothesis, and its nonoccurrence as a disconfirmation. However, most such propositions concern important aspects of companies, countries, projects, teams, individual persons, or other units of analysis in which it is not possible or too expensive to remove a condition just for research purposes. When such an experiment is not feasible the researcher might search for natural experiments, that is, cases in which the condition was removed for other reasons than for research. If an experiment is not feasible and relevant natural experiments are not available, then the theory-testing single case study is the only remaining research strategy for testing. It is, therefore, the preferred research strategy by default.

Theory-Testing Sample Case Study

The methodology of the theory-testing sample case study is derived from how theoretical statements about differences between cases are tested in the sample survey, that is, in a study in which information is collected about a sample of cases from a population (usually by means of a standardized questionnaire) in order to draw conclusions about the population from which the sample was drawn. This entails the same seven steps as in the methodology of the theory-testing single case study. These steps are now discussed, using the example of the test of a linear relationship.

Step 1: Formulate the theoretical statement that will be tested. The theoretical statement that is tested in a theory-testing sample case study is a proposition about differences between cases from the theoretical domain. A proposition that expresses a linear relationship, such as "If there is x% more X, then there is y% more Y," is taken here as an example.

Step 2: Select an appropriate sample. As with a test in a sample survey, one population of cases from the theoretical domain must be selected for the test, and a random sample is selected from that population.

Step 3: Specify the hypothesis for that sample. The proposition "If there is x% more X, then there is y% more Y" must be translated into an expected pattern. This translation (or specification) can have different forms, of which an expectation about the value of the regression slope b_s in the sample probably is the most useful particularly if, in a replication study, a confidence interval of b is available from previous studies. The expected pattern in such a case can be notated as " $b - w < b_s < b + w$," in which b_s is the regression slope in the sample, b is the regression slope in previous studies, and w is the half-width of the confidence interval of b.

Step 4: Measure the relevant variables. The scores of X and Y need to be measured validly and reliably in each case. This is not specific for this specific theory-testing strategy, and thus the same procedures can be applied as in any other research strategy.

Step 5: Test the hypothesis. Pattern matching in the theory-testing sample case study consists of comparing an expected pattern (as specified in the hypothesis) with the observed pattern. When testing the hypothesis specified as an example in Step 3, one determines whether the regression slope in the sample is in the specified range. Note that no attempt is made to confirm or disconfirm a null hypothesis.

Step 6: Formulate the test result. A test result of a theory-testing sample case study is either a confirmation or a disconfirmation of the hypothesis.

Step 7: Formulate the implications of the test result for the theory. As with the theory-testing single case study, the implications of the test result for the theory depend on the number of preceding

tests as well as of the characteristics of the populations in which these other tests were conducted. The research community might be able to draw a conclusion about the robustness of the theory only after sufficient replications.

A proposition about a causal (linear—or, for that matter, curvilinear or other) relationship between variables should ideally be tested in an experiment in which (a) cases are selected from a population, (b) these cases are randomly assigned to two or more experimental groups, (c) the value of X is manipulated in such a way that it differs between the experimental groups, and (d) one observes whether the value of Y differs between groups in the expected way. If the experiment is conducted properly, the occurrence of expected differences in Y between groups can be interpreted as a confirmation of the hypothesis. Such experiments are feasible only for a relatively small number of theories in which the value of X can be manipulated.

If an experiment is not feasible, and if a quasiexperiment also is not possible, then a choice must be made between the theory-testing sample survey and the theory-testing sample case study. The theorytesting sample case study is often a good alternative to a survey that requires the use of questionnaires for data collection in a large sample. Such surveys are plagued by two persistent problems: (1) nonresponse bias and (2) measurement error. Both problems are reinforced, if not caused, by the distance between the surveyor on the one hand, and the informant or respondent on the other hand, resulting from standardization and the large number of cases involved. The theory-testing sample case study does not completely solve these problems, but it allows for recruitment and data collection strategies that result in higher response rates and better data quality. In a sample of 15 cases, for instance, it becomes possible for an investigator to personally visit all sites or informants to recruit them for the study and to collect data in a way in which its validity and accuracy can be checked. On the other hand, sampling error will be much larger in a sample case study and, therefore, the choice between a sample case study and a sample survey is the outcome of a trade-off between the possible extent of sampling error on the one hand and of reductions in selection bias and data error on the other hand. In making this trade-off one should consider that potential sampling error can be reduced substantially by selecting a (very) small population for the test, and that the outcomes of a series of replication studies in different small populations from the theoretical domain are much more informative about the robustness of a theory than the outcomes of a smaller number of large studies.

Critical Summary

There are two types of proposition: (1) those about characteristics of single cases and (2) those about differences between cases. The single case study is the appropriate strategy for the testing of the former type of proposition, whereas the sample case study is a strategy for testing the other type. The methodology of both types of theory-testing case study can be described in seven steps, which are very similar to the methodology of any other type of theory-testing study, be it a survey, an experiment, or another type of research strategy. As with any theory-testing study, the implications of the test result for the theory depend on the outcomes of preceding tests. Only after sufficient replications might the research community be able to draw a conclusion about the robustness of the theory.

Tony Hak and Jan Dul

See also Multiple-Case Designs; Pattern Matching; Quantitative Single-Case Research Design; Quasi-Experimental Design; Replication; Sampling; Single-Case Designs; Theory-Building With Cases

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THICK DESCRIPTION

Thick description is a term used to characterize the process of paying attention to contextual detail in observing and interpreting social meaning when conducting qualitative research. A thick description of a social event or action takes into account not only the immediate behaviors in which people are engaged but also the contextual and experiential understandings of those behaviors that render the event or action meaningful. In case study research, thick description involves looking at the rich details of the case, sorting out the complex layers of understanding that structure the social world.

Conceptual Overview and Discussion

The term thick description was first introduced into the literature of qualitative research by the noted anthropologist Clifford Geertz in the early 1970s, in a seminal essay titled "Thick Description: Toward an Interpretive Theory of Culture." In this essay, Geertz undertakes to operationalize what researchers do when they practice social anthropology. For Geertz, doing anthropology means doing ethnography, which in turn means doing thick description. By this he is referring not simply to the methodological practice of writing field notes but also to the type of intellectual effort that shapes the ethnographic writing process. Geertz borrows the term thick description from the British language philosopher Gilbert Ryle, who uses the example of a wink to explain the different levels of meaning-making associated with describing and interpreting human activity. A thin description of a wink describes it simply as a physiological action involving the rapid contraction of one eyelid. A thick description, in contrast, gives an interpretative account of what the act of winking signifies, depending on the social context and circumstances.

For Geertz, who applied Ryle's philosophical investigations to ethnography, the meaning of the wink as a culturally informed activity—whether it is intended to communicate seduction, complicity, parody, or anything else—rests not in the movement of the eye but in the intricate layers of inference and interpretation that turn the movement of an eye into an act of social significance. The role of the ethnographer, in her or his effort to collect meaningful data that make sense of the social world, is to try to grasp and render the oftenjumbled and -inexplicit terrain of everyday social interaction. From Geertz's perspective, thick description is an ongoing process of interpretation intended to achieve a level of insight into the nuances and complexities of human actions that are always open to further interpretation.

Although originally situated in the discipline of anthropology, the term thick description has come to be used extensively in other social disciplines where qualitative research is carried out. Many qualitative researchers apart from anthropologists use the term thick description to highlight the necessity of paying attention to significant detail in the process of doing research field work. According to the well-known qualitative research methodologist Norman Denzin, the importance of thick description is that it makes thick interpretation possible. It is not just quantity of detail that matters but the illumination such detail can afford. Thick description does not mean accumulating voluminous details about everything that happens, to the point of trivia. Description must be balanced by analysis, seeking to establish the significance of actions, behaviors, or events for the participants involved.

Application

The concept of thick description has particular relevance for case study research because it highlights the importance of looking at phenomena in depth, going beyond the level of surface appearances. The goal of case study research is to illuminate the characteristics and particularities of the case in question. Thick description contributes to achieving this outcome through the emphasis it places on detail; context; thoughts; feelings; webs of relationships; and meanings that are both spoken out loud and those that are communicated by

gesture, silence, and innuendo. Case study researchers, in seeking to examine the distinctive attributes of a particular case, are encouraged to pay attention to matters of history, context, and physical setting that are typically the focus of attention in thick description.

Another important application of thick description to case study research is the central emphasis placed on the elements of narrative and story. From Geertz on down, thick description has always been closely connected with the narrative process of writing field notes: constructing a reading—through writing—of what is happening in the field setting. In case study research, the narrative element present in thick description is paramount, and the concept of the story is mentioned frequently in discourse about case study methods. As case study methodologist Robert Stake attests, the art of case study is the art of telling the story of what is going on, what is most significantly meaningful, in the case in question. It is impossible for this to be the whole story, because there is always more happening than can be contained in a single narrative. The aim is to tell as much as can be discerned through interaction and observation, giving voice to the views and stories of research participants, but always mediated by the interpretive lens brought to the telling by the researcher and the circumstances in which the research is being car-

Arguably one of the best—and best-known examples of thick description is Geertz's classic "Deep Play: Notes on the Balinese Cockfight," which provides a detailed description and interpretation of the role of the cockfight in Balinese culture. This first-person account begins with Geertz clearly situating himself in the narrative, as he and his wife arrive as visiting anthropologists in the remote village they intend to study. The cockfight initially serves as a significant point of cultural entry for the anthropologists, who establish rapport with the villagers by being inadvertently caught up with them in a police raid on a cockfight being held illegally in the central village square. Geertz then moves on to an elaborate discussion of the cockfight itself and the men involved with the game, outlining the intricacies of where, when, and how a typical cockfight might take place and the complex gambling rituals that are also integral to the activity. This wealth of concrete narrative detail

is followed by a more abstract discussion that puts forward Geertz's interpretive take on the cultural significance of the cockfight as a feature of Balinese culture. He describes cockfights as symbolic displays of masculine engagement that are fundamentally a dramatic cultural enactment of status concerns, shot through with a complex interplay of different meanings. The central function of the cockfight for Geertz is interpretive, providing a metasocial commentary on the meanings people make of their own experience. This essay exemplifies what Geertz means by thick description not only because of the rich textural details of the account provided, touching on all the senses, but also because of the unabashed subjective location of the interpretative stance. Although Geertz demonstrates throughout this account that his interpretation is based on extended conversations with informants and familiarity with the culture (including attendance at 57 cockfights), he makes no absolute claims regarding the scientific rigor of his analysis. As with any reading of a cultural event, it presents an informed and thoughtful attempt to make meaning of lived experience without attesting to the universal rightness of this reading.

In recent years, the textual aspect of thick description central to Geertz's original formulation of the term has been challenged and modified. Writing is not the only approach to keeping field notes or to making meaning and communicating research results. In case study and other forms of social research alternate approaches to thick description have been introduced, such as the addition of visual methods of collecting and interpreting data and communicating research results (e.g., photovoice, in which participants are asked to voice their opinions about a subject through viewing photographs that pertain to that subject), along with other expressive forms and communicative media. The important thing, in widening the research lens to accommodate other modes of analysis and expression, is to encourage other ways of paying attention to the rich detail present in every research setting.

Critical Summary

One of the frequent challenges to the interpretive stance in qualitative research is that it is invariably subjective and thus thought to lack scientific rigor.

Although the aim of thick description is to bring the experiences and perceptions of the research participants into account, these perceptions are often partial and contradictory, and they inevitably become interwoven with the experiences and perceptions of the researcher. Neither is there any definitive measure of how thick is thick enough or of whether the description provided in a given narrative account provides an accurate rendering of things as they are, given the multiple lenses through which social phenomena can be viewed and interpreted by actors and observers alike. However, as Geertz and many others would see it, this is not a limitation of thick description as an intellectual effort or research method; instead, it is an inescapable characteristic of the nature and limits of human meaning.

Thick description is not an exact science; it is an interpretive approach to understanding the many layers of what is going on in the social world. To go back to Geertz's original example, taken from Ryle, a wink can mean any number of things in any number of circumstances, and even the same wink can mean different things to different people. The aim of thick description is not to provide a definitive account but to venture a suggestion regarding the range of possibilities. In case study research, thick description is an essential part of the process of determining what the particular issues, dynamics, and patterns are that make the case distinctive. It is one of the foundational building blocks in constructing knowledge and interpreting the interwoven strands of signification that comprise the fabric of human understanding.

Jane Dawson

See also Analysis of Visual Data; Ethnography; Field Notes; Field Work; Naturalistic Context; Visual Research Methods

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TRIANGULATION

In its most literal sense, *triangulation* is a means of fixing a position on the basis of knowledge of the location and distance between two points. However, a postpositivist perspective on triangulation instead gives emphasis to questioning the organizing and ordering practices that stabilize situated knowledge: to understanding researcher stance rather than reducing or removing the effect of research distance from objective truth.

Conceptual Overview and Discussion

Triangulation is an approach derived from navigation, military strategy, and surveying; it is based on the logic that researchers can move closer to obtaining a "true" picture if they take multiple measurements, use multiple methods, or examine a phenomenon at multiple levels of analysis. In social research, the term is associated with the use of multiple methods and measures of an empirical phenomenon in order to reduce bias and improve convergent validity, which is the substantiation of an empirical phenomenon through the use of multiple sources of evidence.

In accordance with its derivation, triangulation is typically described through the language of *cap*ture and constraint—of fixing, positioning, and confining. The implicit assumption in much of the social science literature on triangulation deals with developing a more effective method for the capturing and fixing of social phenomena in order to realize a more accurate analysis and explanation. For organization and management studies, for example, the concomitant phenomenal perspective is of organizations as stable empirical entities that exist and can be represented independent of their observers. This emphasis on stabilization derives from positivism, which assumes a dualist and objectivist relationship between the researcher and what can be known about the research subject.

Norman Denzin distinguished four types of triangulation: (1) data triangulation, whereby data

are collected at different times or from different sources; (2) investigator triangulation, whereby different researchers or evaluators independently collect data on the same phenomenon and compare the results; (3) methodological triangulation, whereby multiple methods of data collection are used; and (4) theory triangulation, whereby different theories are used to interpret a set of data. Within each type of triangulation there are various subtypes; for example, methodological triangulation can include various combinations of qualitative and quantitative research designs. Beyond common paradigmatic assumptions, Marianne Lewis and Andrew Grimes argued that metatriangulation may be employed to examine relationships among different perspectives on organizational phenomena.

Application

A recent example of methodological triangulation is Charlene Yauch and Harold Steudel's use of both quantitative and qualitative methods in two exploratory case studies designed to assess the organizational cultures of two small manufacturers. They discussed definitional debates and chose to distinguish triangulation, which is aimed at corroborating data and reducing bias, from complementarity, which is aimed at deepening understanding. Recognizing these debates but not making such fine distinctions, Melanie Kan and Ken Parry also used mixed methods in their investigation of nursing leadership in New Zealand. In a grounded theory study, they used both questionnaire and qualitative data to make the point that both forms of data may be triangulated within a grounded theory approach. They argued that triangulation within the grounded theory method can help the researcher understand complex leadership processes.

Looking across analytical approaches, Wendy D. Roth and Jal D. Mehta suggested that new forms of triangulation can be used to analyze supposedly contradictory information and to show how positivist and interpretivist research may be mutually informative. They examined two case studies of lethal school shootings in the United States and argued that contextually informed triangulation can assist in the evaluation of differing information through assessment of the context, reliability,

and potential biases of that information and that interpretively informed triangulation can help researchers understand how respondents' views may be influenced by different value systems and the social milieux in which they live.

Despite such attempts, it is important to recognize that the positivist assumptions that underlie the notion of triangulation have been the subject of much debate. Under these assumptions, verification of truth is a possibility, whereas under postpositivism reality can be predicted but not perfectly verified, and emphasis is placed on falsifying hypotheses. According to postpositivism, triangulation is both possible and necessary for, as Egon G. Guba and Yvonna S. Lincoln argued, claims about reality must be scrutinized from as many different viewpoints as possible. Thus, Guba and Lincoln view postpositivism as a variant of the received positivist position. Accordingly, convergent findings can allow greater researcher confidence in the reliability and/or validity of results, whereas divergence can lead to greater definition and theoretical elaboration. Although there may be problems in achieving convergence because of difficulties in replication, lack of focus in or alignment with the research question, or varying sensitivities among research instruments, such problems with triangulation lie with its operationalization as a research strategy rather than with its epistemology.

In contrast, scholars who adopt postmodern and some social constructionist research methodologies have radically questioned the separation of researcher and subject, the notion of a singular reality, and the relevance of triangulation. For example, Elaine Power used a case study approach to demonstrate the inadequacy of trying to arrive at a factual truth via the use of multiple methods and instead emphasized the importance of a reflexive awareness of the situated nature of the research relationship. Discussing a study of how single mothers feed their children while receiving only social (i.e., governmental) assistance, Power presented two contradictory statements made by a research participant and discussed her interpretations of why the contradictions may have been made. She discussed the social position and aspirations of the participant and the circumstances of the interview, stressing the importance of reconsidering the interview transcript and her responses to her interviewee's presentation. Power argued that

the methodological strategy of triangulation is inadequate, because the search for "the true story" does not allow consideration of why contradictions occurred and how their presence may inform analysis of the circumstances behind and within a case study interview.

In addition, David Buchanan questioned the utility of triangulation in processual analysis (analysis over time) and suggested that triangulation has political as well as methodological effects. Drawing on a particular series of case studies on organizational change, Buchanan argued that triangulation may serve to suppress the variety of change narratives and thereby stifle the representation of diversity in organizational life. It is ironic that triangulation, which in theory aims to obtain a more complete representation of reality, may instead serve to present an impoverished picture.

Postpositivist Triangulation

Given such concerns, an alternative way to consider triangulation is to emphasize distinctions between positivism and postmodernism, viewing postmodernism as postpositivist. Under postmodernism, reality is mediated rather than objective, and language constitutes rather than reflects or describes any more essential mental processes. Indeed, postmodernism is directed against a picture theory of language in which physical properties of the world are considered fixed while language can be adjusted to meet the needs of their description. If the living subject is no longer understood to be a concrete object, then its representation, capture, and transmission become more difficult, and concern lies more with questioning taken-for-granted categories and oppositions than with finding answers. Thus, the focus is not only on the metaphorical space within the enclosing triangle but also on how and by whom it is drawn or structured in the first place. It is, therefore, important to direct attention not only to the output of empirical studies but also to the dilemmas, inclusions, and exclusions of the research process as a social and relational act.

Accompanying such recognition of the research author's stance comes a demystification of the researcher's authority. Rather than professing to being privileged, masterful assimilators of insightful research findings, authors are now only tentative interpreters embedded within and dependent on a particular social context. Rather than attempting to generalize from limited findings to a whole picture, such authors can be more playful and tentative with the parts, coming in at them from different perspectives and combining and recombining them to form new possibilities, but always within the particular traditions and limitations of their referent communities.

Such considerations led Julie Wolfram Cox and John Hassard to suggest that it is worthwhile to consider not only the *triangulation of distance* to the true subject but also the *distance of triangulation:* the reflexive *stance* of the researcher. In doing so, their focus was on unsettling assumptions about the fixed metaphorical space within an enclosing triangle and on drawing attention to how and by whom it is drawn or structured. In their analysis, emphasis shifted from observation and stabilization to an appreciation of organizing and ordering practices and of the precarious nature of the organizational research endeavor. In particular, they (deliberately) considered three possible research strategies—and their associated impossibilities.

The first of these strategies is to follow nomothetic lines and search for convergent patterns based on theoretical propositions. For example, on the basis of the systematic testing of a series of hypotheses (developed from a review of the research literature), interview and questionnaire data can be analyzed for recurrent patterns across different sources of information. Whether undertaken via the use of qualitative or quantitative techniques, such approaches can be understood as strategies of convergence and divergence. The process would start, for example, with convergences at one data point before attempts to refract or "spread out" to other data points in the search of associated patterns of similarity and difference, before ultimately generalizing and predicting the likelihood of similar patterns in a wider population. Further convergence could be found through identification of holographic typical cases that best describe the data set through a model of best fit and/or through a detailed qualitative description of an individual or situation, supplemented by ample quotations and detailed contextual information. In either form, this kind of representation assumes that careful examination of a subset of variables or data can help the researcher to see the whole picture. Although both

approaches draw on the imagery of light, a signal difference between them is that a holographic approach is a virtual, three-dimensional image, whereas refraction is two dimensional in nature. Even so, it is worth remembering that the holographic image is only ever virtual and thus always beyond the viewer's reach. Despite its sophistication, the hologram is only ever a representation, and its apparent nearness may be illusory. In addition, there may be instability not only in the relations being described but also in the data collection process, which can be affected by participants' noncompliance and personal agendas. In summary, following nomothetic lines in the search for patterns offers possibilities for refraction and holography but also presents impossibilities in that the whole cannot be captured where there is slippage and iteration over time.

The second strategy is to take an ideographic overview of content generated from research participants, to attempt to stand back from the data and to look for patterns and typifications not from nomothetic, researcher-generated classifications based on research questions derived from literature reviews but from a multidimensional scaling analysis or, using qualitative techniques, from a content analysis of metaphors and other tropes used by participants. However, efforts to bring the viewer closer to a representation of the real picture may still be fraught with difficulty, because questions can be raised regarding whether such stepping back allows the researcher to get closer to the data or, indeed, farther away. It can be argued that stepping back is like looking through a diffraction grating in an effort to see a light pattern that is not otherwise visible. Such regression may be more like "looking over" or trying to "play the god trick." Thus, research that appears to be characterized by researcher involvement and attempts to understand local realities may still in many ways resemble the researcher detachment characteristic of the following of nomothetic lines. This is a problem of perspective, because the wholeness that the researcher is trying to see may be instead an illusion of distance.

Because attempts to see the whole pose such difficulties, the third option, finding an angle, is for the researcher not only to enter the picture but also to choose to adopt a partial view. One possibility is to take an appreciative stance in the sense

of positively valuing what is best about a human system and to recognize the affirmative potential of research input into analysis beyond the status quo. This may allow for a new way of thinking about the stance of the researcher, because instead of considering triangulation as an approach to closure or capture it can be seen as an opening or angling. It can be argued, therefore, that because it is never possible to be neutral and dispassionate in attempts to enclose the whole, perhaps researchers should abandon attempts to do so.

Critical Summary

If the logic of triangulation is to be revised, there is a need for less dualistic thinking—for less separation of observer and observed. The reflexive consideration of the researcher stance considered here aims to introduce a nondualist revisiting of the assumptions of triangulation in which the researcher and researched are mutually defined. In this analysis, emphasis shifts from observation and stabilization to an appreciation of organizing and ordering practices. The aim is not to dismiss or reject triangulation, or to call for more of it, but to present a new perspective.

Julie Wolfram Cox and John Hassard

See also Postmodernism; Validity

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Underdetermination

A philosopher, a mathematician, and a sociologist were in a train in Scotland. They saw what appeared to be a black sheep. "All the sheep in Scotland must be black," said the sociologist. "There's at least one black sheep in Scotland," said the mathematician. The philosopher said "It appears that one side of one sheep in Scotland is black." Given any set of data there are (logically) many theories that adequately explain the data. Because the data are not sufficient to determine that only one theory can adequately explain it, the data are said to *underdetermine* the theory.

This raises two questions. First, why should we accept a particular theory as being the best available explanation of the data? Second, given competing theories, how can we decide whether one or the other is a more acceptable explanation of the data? Because the data underdetermine theory, one must consider other factors. In the following, some of the extratheoretical concerns regarding theory choice are presented.

Numerical/Statistical Data

When data are strictly numerical, regression is an accepted means of curve-fitting that governs the derivation of mathematical expressions to explain the data. Strictly speaking, such expressions are valid only over the domain of the data used to derive them; additional data may result in a different explanatory expression. Regression introduces

two ideas that affect our choice of theories. First, a theory that explains a lot is held to be better than one that explains small amounts of data. Second, one can discount as being somehow aberrant both data that seem to be extreme and predictions that are not satisfied.

Observational Data

In case study research data often consist of observations or events rather than numbers. Given an explanatory theory, the possibility that there is some other theory not yet considered or devised that will better explain the data cannot be discounted. Thus, despite the certainty with which a particular theory may be presented, it is considered strictly the best theory advanced to date and, as with the case of regression, additional data may demand a different theory or an ad hoc adjustment to an accepted theory.

Theory Choice

The sheep story that opened this entry illustrates three theories that explain the observation. How do we choose which one is "best?" The data will not help us. Because theories both explain and predict, we could argue that the sociologist's "all sheep" theory is preferable because it possesses greater predictive power than the alternatives, but this does not seem to be a good reason to accept it for its explanatory power; by this criterion, the philosopher's theory seems best. There is no obvious connection between explanation and prediction.

Other criteria used for theory acceptance are neither rigorously derived nor applied. The presentation of the preferred theory often takes the form of an *inductive argument*. The link between the premises (reasons to accept the theory) and the conclusion (that a particular theory best explains the data) is often *inferential*, a process not well understood.

Extratheoretical claims that govern theory choice (and are often not made explicitly) include the following. Although they are frequently used, it is (in a philosophical sense) difficult to justify any of them beyond the claim that "they work."

Often cited is Occam's razor: that all other things being equal (an uncommon occurrence), a simpler theory is preferable to a more complex one. Allied with this is the view that an "elegant" theory is preferable to others. "The only game in town" claim states that there is no other viable explanation. "More is better" is the claim that a theory can explain a wide range of situations. Often, a case study presents a unique situation, so a theory that explains the case is a "one-off" theory. However, that the theory possesses explanatory (or predictive) value in other cases is taken to support its acceptance. Finally, that an alreadyaccepted theory can provide explanation of a particular case strengthens the reason to accept that theory. On the opposite side, that there is no adequate explanatory theory, "more research needed" is the view that there is not adequate data to support any particular theory.

Application

Theories exist that explain crime, such as poverty, race, or social conditions, or that aim to "solve" crime, such as tougher sentencing or devoting most police resources to solving major crime at the expense of less serious crime. Kelling and Coles, in their study of crime reduction in New York, present the theory that to address the fringes of crime through a community policing model is effective in reducing all crime. They present anecdotal evidence and crime figures to support a steeper than expected decline in all types of major crime from 1993 to 1994. However, they also point out that there has been a general decline in crime in the United States since 1990, which suggests there may be an alternative reason

for crime decline. Why, then, should we accept the explanation that restructuring and redirecting the New York Police Department is particularly effective?

The reasons include the following. The restructuring applies methods to policing that have seemed to be effective in other areas of society (widening the applicability of an existing theory). It is a simple theory (Occam's razor). It shows why other approaches have not been successful (thus it is better than other theories). It explains why New Yorkers feel they are experiencing a better quality of life (it is the only explanation of something new). On the other hand, other cities have experienced decreases in crime, but without making the same structural changes to their police departments, so it is unclear how generally applicable this theory is.

Conclusion

This entry has reviewed what our practices are when underdetermination makes us confront the issue of theory acceptability or choice. Knowledge of these practices and their slim justification suggests that some circumspection is prudent when advancing theoretical claims.

Alan Belk

See also Abduction; Explanation Building; Falsification; Inductivism; Theory, Role of

Further Readings

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Use of Digital Data

The use of digital evidence as part of research data has the potential to add to the tradition of providing "thick" description through the case study approach. However, current methods of data analysis typically require the researcher to transcribe the data, reducing them from their rich three-dimensional state. The term *digital data* refers to content collected using digital photography and video and audio equipment, resulting in primary source files in electronic formats (e.g., jpeg, QuickTime, and .wav files).

Conceptual Overview and Discussion

Recognized as a method used to gain an understanding of a complex issue or issues, case study encourages the collection and analysis of multiple data sources that help the researcher focus on a limited, or bounded, population, site, or situation. The strength of this approach is the potential richness of the various types of data (e.g., documents, interviews, observations, photographs, physical artifacts, sounds, surveys, etc.); the challenge is the volume of collected data and the researcher's struggle to manage the data during the analysis phase.

Concerns about management range from the sheer quantity of data to the physical manipulation and organization of the various types and formats. Therefore, there is a very real potential that the researcher can become overwhelmed and actually lose sight of the initial purpose of the study and the research questions, in a sense, drowning during the analysis process.

A solution to this problem rests not in transcribing digital data but rather with working with the data in their original format. For example, researchers typically conduct an interview, recording it on either a tape recorder or digital recorder. They then spend either a substantial amount of time or money transcribing the interview into text. During the transcription process, gestures, tones, and pauses are noted using descriptive words and various symbols, but many researchers have noted that significant evidence and understanding are lost during that process and that a significant portion of research budgets were expended.

In the past, one could argue that transcription was necessary, because software options for working with primary source data were expensive, cumbersome, and not commonly available. However, that is no longer true. Commercial software such as Microsoft Office or Google Apps allows researchers to manage digital content easily and work directly with the data collected in field throughout the analysis and reporting phases. This shift in practice has the potential to not only strengthen the

quality of the data but also to add a richer dimension to the presentation of the findings, allowing participants and readers to see the evidence and draw their own conclusions as to the findings.

The ability to continue to work with the primary data supports the need of researchers to ensure that their studies have internal and external validity as well as reliability. It also helps provide a clear, evidence-based model for the replication of the study in a different bounded setting, one of the additional values of the case study approach. Fundamental to working with primary data is the development of a process to manipulate the data. This requires three steps: (1) editing; (2) sorting, categorizing, and organizing; and (3) retrieving the data. These steps are described in the next section of this entry.

The rationale for working with the rich, primary data rests in the fact that rich data, which are the heart of the case study method, enhance the development of a theory that is accurate, interesting, testable, and well supported. They serve as an incubator for inspiration and support a disciplined approach to testing theory with practice, through an objective view of the data, allowing additional theory to emerge through the sorting (analysis) process.

Critical to the process of working with digital data is the sorting and organizing aspects, both of which are consistent with Erving Goffman's work on frame and code analysis. By using either the table feature within most word processing applications or a spreadsheet (e.g., in Microsoft Excel), researchers can label rows *frames* and columns *codes*, placing edited digital data into the cells that intersect the two and that provide evidence. Data can be replayed and reviewed at any time during the analysis process, maintaining the integrity of context in which the data were collected and the voice of the participant who contributed it.

Application

Collecting data using digital tools (e.g., cameras, voice recorders, etc.) is not new, but the process of working directly with the data without first transcribing them is. First described as a process at the International Qualitative Research Conference in 2005, the approach was greeted with great enthusiasm. Many participants left the session, headed directly to purchase an iPod (one

Table I Initial organization of a literature review

Frame and References	Code	General Description	
Interpersonal Skills (Brennan, 2003; Brennan et al., 2001; Coppola et al., 2001; Gold, 2001; Goodyear et al., 2001; ISTE, 2002; Kearsley & Blomeyer, 2004; Kemshal-Bell, 2001; Miller & King, 2003; Palloff & Pratt, 2000; Schofield et al., 2001)	Online Teacher Competency: Relating to Learners Online Teaching Challenge: Rapport and Motivation	 Engaging and motivating learners Building rapport, nurturing community and encouraging collaboration Positive attitude to online teaching Establishing personal relationships without face-to-face contact or visual cues 	
		Keeping students motivated and on task	
Technical Skills (Anderson et al., 2001; Berge, 1995; Good, 2001; Goodyear et al., 2001; Kemshal-Bell, 2001; Miller & King, 2003; Palloff & Pratt, 2000)	Online Teacher Competency: Using Online Learning Tools	 E-mail, discussion boards, HTML, chat, Web page development, multimedia Troubleshooting Technological fearlessness 	
	Online Teaching Challenge: Technology	 Maintaining ongoing technological knowledge and skills 	
Pedagogy (Australian Flexible Learning Framework, 2002; Brennan et al., 2001; Brooks, 2003; Hansen & Salter, 1999; Kemshal-Bell, 2001; Miller & King, 2003; Oblinger & Maryuma, 1996; Palloff & Pratt, 2000)	Online Teacher Competency: Using Effective Online Teaching Methods	 Determining and using effective teaching methods Facilitating and guiding learning Open-minded, risk-taking attitude 	
	Online Teaching Challenge: Learner Diversity	 Meeting diverse learner needs and learning styles 	
Instructional Design (Anderson et al., 2001; Gold, 2001; Kearsley & Blomeyer, 2004; Kemshal-Bell, 2001; Miller & King, 2003)	Online Teacher Competency: Designing Effective Online Learning Experiences	 Translating curriculum content to online without replicating face-to-face classroom (i.e., providing clear instructions, chunking content) Designing and developing engaging and motivating tasks and activities 	
	Online Teaching Challenge: Preparation and Time	 Time required to design digital learning objects and online course materials 	

Source: Author.

of the first digital voice recorders), and started to utilize the method in their work.

The first step involves preparing a framework to support the research question. This is consistent

with the literature review phase. As the themes emerge, they can be organized into a table or spreadsheet, which helps the researcher begin to see patterns and gaps. An example of the themes (similar in structure to Goffman's frames and codes) is shown in Table 1. Frames are supported by specific references that in turn inform the development of the reference list and help with the citation process during the writing stage. The codes reflected specific, smaller sets of information that support the more general frames. The "General Description" column is included to help remind the researcher of the criteria that informed the original selection of the themes and codes.

Depending on the size of the research study (number of participants to be interviewed, observations to be made, amount of data collected, etc.), an individual table can be created for each frame (large study), or an evidence column can be added for data (smaller study) for each frame/code (see Table 2). Data in the "Evidence" column consist of the file name as well as the actual clip that can be played or viewed directly within the cell. In this example, one type of evidence is a portion of an interview that was recorded using a digital recorder, clipped using the process described later in this entry, and exported in a format that can be played using iTunes on a computer or played on an MP3 or MP4 player. A second type of evidence is the photograph that illustrates Teresa (a pseudonym) sharing the storyboard of her instructional design process. The photograph was cropped

using photo editing software (e.g., iPhoto or Photoshop Elements).

Equal to the concern of being overwhelmed by the amount of data researchers collect using case study methodology is the worry about file size and being able to find the actual portion of a piece of evidence. In the case of audio or video interviews or observations, the researcher can use simple and inexpensive tools (e.g., Audacity or QuickTime Pro) to clip the original content into usable chunks that support individual frames and codes.

Steps in this process include the following:

- Conduct observations or interviews using a digital voice recorder (e.g., iPod with microphone attachment, SanDisk with internal microphone) or video camera. Note that each time the recording device is started and stopped, a new file is created.
- Download the data from the recording device into iTunes, which supports multiple platforms (e.g., Apple, Linux, Windows) and allows the researcher to date, name, and organize the files.
- Download editing software from the Internet.
 Suggested software includes QuickTime Pro or Audacity.
- Open individual files with the editing software.

 Depending on the computer, it may be necessary

Table 2 Digital data in a literature framework

Frame and References	Code	General Description	Evidence
Instructional Design (Anderson et al., 2001; Gold, 2001; Kearsley & Blomeyer, 2004; Kemshal-Bell, 2001; Miller & King, 2003)	Online Teacher Competency: Designing Effective Online Learning Experiences	 Translating curriculum content to online without replicating face-to-face classroom communication (i.e., providing clear instructions, chunking content) Designing and developing engaging and motivating tasks and activities 	idmy2.wav idteresa.wav
	Online Teaching Challenge: Preparation and Time	 Time required to design digital learning objects and online course materials 	idmy3.wav teresa.jpeg

Source: Author.

Note: All reference citations are for a hypothetical project.

- to drag files from iTunes onto the desktop in order to easily open them. This also allows the researcher to maintain the original files in two locations—the recording device and iTunes—in order to protect the original data source.
- Researchers listen to the files in the editing software; by using the editing functions (copy/paste), files can be clipped into small pieces, saved with a descriptive name, and inserted into the appropriate cell in the framework.

The beauty of this method rests in the ease of editing the source files and the ability to place data within the framework as they are being analyzed. This process helps the researcher to see when a frame/code has been saturated and when or whether more data collection is warranted. The files can be edited for extraneous content, such as introductions, interruptions, and informal conversations that are not relevant to the research, saving time and cost of unnecessary transcription. Throughout the analysis process the researcher can hear the intonation, passion, pauses, and inflections. This method reduces the impact that the transcription process has on the content, noting that principal researchers, because of time or cost considerations, often do not do the transcription themselves and, even if they did, the process itself flattens the rich three-dimensional quality of the original statements into a two-dimensional, flat text format. Once the clips have been coded appropriately, researchers can then transcribe only those selections that are necessary for subsequent publication. However, an increasing number of online journals encourage the use of digital evidence/examples.

Critical Summary

Increasingly digital tools are being used in qualitative research. However, significant value is lost when researchers transcribe the data. The final word needs to go to a recent doctoral student, who noted in her concluding chapter, as a result of using the clip and coding process, that the researcher could still hear the intonation, the excitement, the frustration, the awe, the surprise, the disappointment, the enthusiasm, the aggravation, and the satisfaction of each participant's voice—an exceptionally rich experience that will not soon be forgotten.

Susan Crichton

See also Analysis of Visual Data; Documentation as Evidence; Frame Analysis; Interviews; Visual Research Methods

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UTILITARIANISM

Utilitarianism is a central feature of Western ideas about society, so intrinsically bound up with the cultural framework that it is often applied without acknowledgment. Developed as a system of thought by Jeremy Bentham (1748– 1832), this form of analysis sought to explain the nature of the human creature and its choices of behavior and from this develop principles of legal policy and legal reform. Taking the biological individual as the basic unit of analysis, utilitarianism asserts that his or her purpose is to gain happiness through the pursuit of pleasure and the avoidance of pain. Correspondingly, public policy and law should facilitate choices that promote the "greatest happiness of the greatest number" of a specific population understood as the sum of happiness of the individuals considered as a whole.

These ideas were later put forward by the socalled "philosophic radicals" in Britain as a basis for social policies in the 19th century. Thereafter, the principles and purposes of utilitarianism have almost invariably found their way into social analysis and policymaking.

Conceptual Overview and Discussion

As a legal argument, utilitarianism directs the policymaker to assess the results of existing or proposed laws. If it is criminal law, seeking to prevent certain behaviors through threat of punishment, an attempt is made to "make the punishment fit the crime" by being sufficiently unpleasant, but no more, to deter such actions. In this context, an argument for (or against) capital punishment will examine both particular and similar cases to assess whether the death penalty produces the desired results (i.e., whether it reduces the chances of people killing each other). If, on the other hand, the law is one that aims at distributing economic resources in a way to increase the satisfaction of needs and desires (through welfare measures), studies must assess the altered circumstances of the persons affected.

There is no specific list of material or moral preferences and goals linked to the utilitarian analytical approach other than the satisfaction of individuals and the production of happiness. It is not a Big Brother approach to social policy, directing the one or the many toward that which is "best for them" in the mind of the researcher or the policymaker. Happiness is a personal thing, and the happiness of a group or community of individuals is the sum of what they choose for themselves, whatever those things may be. Utilitarianism does not intrinsically contain any need to "improve" the type or quality of choices that one might make. We might be told how to make choices by keeping our happiness to the fore—Bentham said that we should do it with mathematical care by means of a felicific calculus—but, other than that, in the words of Bentham, "pushpin is as good as poetry." In modern vernacular, playing a computer game is as valuable as reading a good book—if that is where one's pleasure lies.

Such a "vulgar" orientation has not always satisfied the utilitarian turn of mind of the student of the social condition. The well trained and well educated, or simply those with a passion for their own particular brand of truth and justice, often implicitly or explicitly formulate their analyses and conclusions in a form that would persuade or coerce their subjects toward goals never imagined by them. John Stuart Mill (1806–1873), an intellectual giant in the promotion of utilitarianism,

could not imagine that a contented ignoramus should be left alone. Some kinds of happiness are, for this kind of utilitarian thinker, simply better than others and should be given preference and promotion.

Students of society might find it easy to select "better" sorts of satisfaction that should be encouraged in the subjects of their studies. Studies of substance abusers, such as alcoholics and drug addicts, do not usually produce a recommendation of ways to facilitate their satisfaction by providing easier access to alcohol and drugs. On the other hand, to take a morally superior or directing posture suggests that such people must be guided; this can lead one down the path to behavioral control through education (brainwashing) and rewards and punishments (sometimes through the application of criminal law and imprisonment). Even in such "obvious" cases, the end of this approach can be viewed as a denial of personal choice that is the original assumption of the utilitarian paradigm.

Application

When researchers examine how behaviors contribute to human satisfaction they often make judgments concerning the conditions that facilitate a "better" and/or "happier" life for the subjects involved and assess the factors that promote those choices that might be counterproductive to that life. If this is the case, they should always recognize their arbitrary introduction of preferences into their academic projects. Studies of drug addicts do not encourage further dependency. Studies of students in the process of adjusting to a college milieu do not suggest that conditions permitting a comfortable isolation from peer groups be countenanced. Studies of criminals do not suggest behavior that will make them less likely to be caught. All researchers ought to provide a rationale for what may seem so obvious, and the utilitarian will do so by arguing that the subjects will be happier with alternative behaviors.

Finally, one can take note that, as a theoretical tradition of modern scholarship, utilitarianism has the possibility and potential of making one conscious and independent of cultural assumptions that might otherwise limit the choice of subjects and associated data. Its very individualistic orientation, although closely associated with a

liberal and even bourgeois mentality, provides an opportunity to recognize and isolate cultural predispositions in the subjects of study. Consequently, studies of the circumstances faced by women in any culture can use a utilitarian approach to ask what would benefit their well-being outside of the context of their frequently unquestioned subordination to males—even though this may lead to charges of "cultural imperialism" by those who resent such studies.

Critical Summary

In the last analysis, studies of any person or group can use the utilitarian approach as part of the task of identifying factors that increase or decrease their well-being and happiness. Moreover, to the degree that it is a constant element (even if implicit) in the perspective of the researcher, it is best that we try to recognize it and use it consciously. As such, it can be a used as a vehicle to promote the potential autonomy of its subjects and avoid the temptation of surrounding them with recommendations, goals, and controls that are not of their own making.

Frank Harrison

See also Author Intentionality; Consciousness Raising; Eurocentrism; Liberal Feminism; Naturalistic Generalization

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Toronto, Ontario, Canada: Clarendon Press. Mill, J. S. (1863). *Utilitarianism*. London: Parker, Son, and Bourn.

UTILIZATION

Utilization is central in the creation and diffusion of research knowledge. The notion refers both to the outcome and the process of using knowledge. There are different kinds of utilization, such as conceptual use for enlightenment or freedom from falsehood; instrumental use for the solutions of problems; political or symbolic use for the justification of actions, policies, and decisions; and process use, which brings about individual changes in thinking and behaving as more research information is made available to a user.

Conceptual Overview and Discussion

Research on science communication provides sophisticated conceptualizations on the multidimensional nature of utilization. According to Carol Weiss, there are many meanings of research utilization. Michael Quinn Patton further noted utilization as the core of an evaluation research. From an epistemic perspective, a number of related terms, such as usability, usefulness, and credibility, are employed to examine the effectiveness of utilization or knowledge use. Effectiveness focuses on the outcome of use relative to a user's goals or expectations, usability refers to the potential or probability for research information to be used, and usefulness reflects the potential of knowledge to produce an outcome that could be subsequently evaluated as (in) effective in terms of users' goals or expectations. Because usefulness is relative to specific tasks or objectives, there is a temporal dimension in that knowledge can lose its usefulness over time. In addition, credibility reflects the perceived quality or value of research knowledge. Among the dynamics of use, usability is affected by credibility and usefulness because actual knowledge use is determined not only by its perceived quality but also by its potential or likelihood to produce effective utilization results.

Discussions on utilization are built on, and/or related to, a number of theories about knowledge production and dissemination, including the *two-community theory*, the *systems theory*, *bipolar and/or tripolar models* in the context of social interactions, *knowledge-driven theory*, and *problem-solving theory*. These conceptualizations contribute to the theoretical underpinnings of utilization research in relation to varied use outcomes, the variety of stakeholders involved in knowledge use, and the complication in the process of utilizing case study knowledge.

Methodologically speaking, research on utilization has experienced a shift from positivist's measurement to constructivist's engagement. Very often, the former is characterized by quantitative

approaches to measuring the various dimensions of knowledge use. These undertakings have resulted in the development of utilization scales or indexes in different fields or subject areas. The latter, being a broad paradigmatic perspective, usually encompasses approaches to utilization as emancipation, empowerment, and/or socially constructed understanding through strategies such as collaborative research programs, participatory or action research, knowledge networks, communities of practice, organizational learning, utilization-focused evaluation, and ethnographies of knowledge mobilization or exchange.

Application

Issues surrounding the utilization of research are particularly germane to the case study method. In fact, the association of case study with research on diffusion of innovation, utilization of evaluation, and leveraging or mobilization of knowledge has been strong in the scholarly discourse. Because of its vantage as a study of the particulars, case study inquiries often look into the nature, backgrounds, and physical and geographical settings, as well as the sociocultural contexts, of a phenomenon under scrutiny. As Réjean Landry, Nabil Amara, and Moktar Lamari note in their study on the use of social science research in Canada, this strategy is depicted as one of the major approaches to utilization research.

Landry and his colleagues examine the extent to which university-based social science research in Canada is used in their country and the factors and disciplinary differences that explain or affect its use by practitioners, professionals, and decision makers. They approached utilization as a process between and/or among the various knowledge stakeholders that encompasses six stages: (1) transmission (the communication of research results to the user), (2) cognition (whether research reports are read and understood by the user), (3) reference (whether research is cited or used in decision/ policymaking), (4) effort (whether attempts are made for users to adopt research results), (5) influence (whether research has an impact on choices, decisions, and policies), and (6) application (whether research gives rise to applications or extension by practitioner users). Results from their study show that nearly half of the research knowledge has lent to some forms of use.

They also reported that professional or applied social sciences, such as social work and industrial relations, have lent to a higher level of utilization than disciplinary social sciences, such as economics, political science, sociology, and anthropology. Among other factors, mechanisms linking researchers to knowledge users, dissemination efforts, researchers' adaptation of results to potential users, use contexts, and publication media serve as major explanations of utilization.

In addition, as Robert Yin and Margaret Gwaltney note, outcome evaluations are often indiscernible from the process of utilization. In their case studies of knowledge use in the settings of service and educational programs, Yin and Gwaltney found that the use of research information has resulted not only from the establishment of user (or social) networks but also from organizational characteristics or interorganizational arrangements that nurtured interpersonal networks and communication. From a systems perspective, their case studies identify five different types of linker interventions—simple interpersonal, simple interorganizational, differentiated interpersonal, differentiated interorganizational, and mixed systems—to account for knowledge utilization as a networking process.

Results from these case studies suggest that utilization goes well beyond the dissemination of research knowledge to an intended user group or audience. Its outcome depends as much on factors such as information attributes, researcher behavior, and user contexts as it does on social networks and organizational arrangements, which are seen as instrumental in shaping the utilization process.

Critical Summary

Research on utilization has carved out an area of intellectual pursuit that, from an epistemic standpoint, is evolutionary or changing in itself. As outlined in this entry, the emergent paradigm shift of knowledge from measurement to engagement makes case study inquiries particularly relevant to perspectives such as utilization-focused evaluation, community–research alliance, knowledge networks, community of practice, organizational learning, and knowledge management. Nonetheless, as a research strategy case studies on the use of scientific knowledge will need to further address potential

methodological caveats, such as a short span of time under investigation, informants' lack of knowledge about or sensitivity to the use of research, investigators' inability to recruit and interview all the key informants, and the potential bias of, or overattention to, forceful and articulate informants.

Honggen Xiao

See also Community of Practice; Constructivism; Epistemology; Knowledge Production; Praxis; Socially Distributed Knowledge

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VALIDITY

Validity refers to the extent to which a concept is actually represented by the indicators of such concepts. Often confused with *reliability*, which refers to the consistency of measures, validity extends beyond measurements and quantitative assessment of particular research questions. Because case studies may comprise quantitative and/or qualitative data and approaches, validity is more or less an issue of research quality. This has implications for both how validity is assessed and the determination of whether assessment is at all applicable.

Conceptual Overview and Discussion

How is one able to trust the conclusions of case study research and judge the extent to which the findings actually speak to the concepts with which the research and case (or cases) are concerned? This discussion of validity is at the heart of these vexing questions. However, there is no easy, formulaic approach to assessing validity in case studies. This is because there are both a wide range of types of validity as well as a preponderance of different types of data and approaches to case studies. If one believes that it is advantageous to have a broad range of perspectives and approaches within the social sciences, then one must contend with the fact that an equally appreciative and nuanced understanding of validity as it applies to many different research contexts is required.

Often, validity is mistakenly assumed to be concerned only with issues of measurement. This

reflects a presupposition of both quantitative data as well as philosophic/ontological presumptions of an independently existing social reality. This narrow appreciation of the underlying quality concerns regarding research offers a quandary whereby we desire assurances about the quality of the research but lack a programmatic checklist of characteristics to assess. Indeed, although fundamental concepts of trustworthiness are found across research traditions, the particular ways of assessing such legitimacy are deeply and historically rooted in each tradition. This being the case, this entry examines a variety of types of validity, but without a prescriptive formula for any general application to case studies. Through the use of some examples, the implications of different types of validity are illustrated.

Face Validity

Face validity is concerned with how well the study, case, measurement, or data acquisition tool (e.g., a survey or interview transcripts) represents an intuitive and commonsense understanding of a phenomenon. In essence, it concerns a sense that individuals would reasonably find the applicability of the data or method to the research problem credible. This issue of credibility is therefore broadly applicable to case studies of all types.

Ecological Validity

This type of validity is fundamentally concerned with whether the findings of the researchers' inquiries actually bear any resemblance to the lived experience of those whom the researchers are studying. The researchers might imagine a situation whereby they create a nuanced version of what they believe to be the central concerns and trials of individuals in a particular case, only to find that their interpretation or analyses are essentially unrecognizable to the people they have studied. Although there is a compelling argument to be made that the results of social science do not need to be recognized by the research subjects, it is also the case that studies without some evidence of ecologic validity beg the "So what?" question. Thus, ecological validity interrogates the extent to which research may be rigorous and yet may not be applicable or relevant to the actual experience of those within the case study.

Predictive and Concurrent Validity

As one might expect, predictive validity is focused on the future. The central concern with predictive validity is how well one might expect to be able to consistently and accurately predict the future on the basis of the present. This naturally requires the passage of time if one is to link the two. Concurrent validity refers to a situation in which both criterion and predictor are measured at the same time. Although there is no temporal relationship between these two types of validity, Robert Guion identifies that both types of validity place an emphasis upon outcomes. Because of the difficulties in achieving predictive validity, concurrent validity is sometimes seen as a reasonable substitute.

In quantitative methodologies, achieving predictive validity requires specific consideration of sampling frames with a particular focus upon randomized selection of participants. This highlights the idea that, in order for findings from one study to be applied to other contexts, let alone future outcomes, the generalizability of the study needs to be critically assessed. In qualitative case studies the idea of predictive validity would relate to how well one might extrapolate the findings to future actions and outcomes. Is the past truly the best predictor of the future? How do we know? These questions must be addressed if a qualitative case study makes predictive inferences.

In general, we may accept claims of predictive validity only as long as no significant changes occur

in the context in which the validity has earlier been established; that is, changes that substantially affect the context in which the specific relationship between predictor and criterion are embedded potentially affect one's ability to generalize the established predictive validity to the new situation. Thus, predictive validity is likely to be quite hard to establish. Nevertheless, in research that is intended to inform practice or policy predictive validity is quite desirable. For example, we might wish to use the past job applicant interviewing strategies in a particular organization to predict how effective future successful job applicants would be at their jobs. Theoretically, this would require a random selection of individuals and a large enough sample size to uncover the relationship between the interviewing and the outcomes. In this example, there is also the serious problem of knowing the job performance only of successful applicants (i.e., we might reasonably ask whether unsuccessful applicants could also perform well at the job). For reasons such as those offered in this example, concurrent validity is often substituted for predictive validity in such cases, given the likely constraints faced in terms of resources. In this example, we might accept that our sample will be constrained to only successful job applicants and how well they perform their duties after hiring.

Predictive validity may be both prized and difficult to obtain in real-world situations. Practical constraints often cause researchers to substitute concurrent validity and use it in ways that are not necessarily conceptually sound when predicting the future. For these reasons, the debate concerning how well concurrent validity overlaps with predictive validity is both salient and ongoing.

Measurement (Construct) Validity

This aspect of validity is largely concerned with how well researchers have succeeded in actually measuring the particular concept or phenomenon they purport to be investigating. Thus, this type of validity is keenly focused upon quantitative methodologies. When measuring something, the reliability of the measure researchers use is critical. Reliability is a central aspect of measurement (construct) validity, because if the measurements themselves are not consistent and stable across time and contexts then researchers are unable to

be confident that they are actually measuring the concept they are studying. As an analogy, if researchers measure the temperature of a room with a thermometer that is not consistently accurate within a specific temperature range, how are they to know whether the reading is not error rather than the actual temperature of the room? In short, they need to be assured that the measurements are reliable and that the relationships they uncover are legitimate (see the next two sections of this entry, which address internal and external validity), hence the often-repeated advice that reliability is a necessary but insufficient condition of measurement (construct) validity.

Does construct validity matter when one is conducting qualitative case studies? Yvonna Lincoln and Egon Guba suggest that in this situation the idea of *dependability* closely approximates reliability, and they describe dependability as being concerned with how findings of the study are applicable at other times.

Internal Validity

When researchers speak of *internal validity* they are concerning themselves with the concluded causal relationship between variables. Although this terminology is typically used in quantitative methodologies, the concept can be extrapolated to some qualitative studies as well. Internal validity is an issue of how well the particular relationships described in the research actually can be ascertained to be the primary dynamic at play, rather than an artifact of some other process. For example, are we able to conclude that an employee's job satisfaction is the primary reason that he stays in a particular job, or rather is it the poor alternative employment opportunities available to him during the time of the study?

External Validity (Generalizability)

External validity concerns are related to the idea of generalizability: the ability to take the findings from one study and apply the same relationships and conclusions to other populations and contexts. Quantitative studies attempt to ensure generalizability through the use of representative sampling. Qualitative case studies, on the other hand, often suggest that their very

strength is in not achieving significant possibilities of generalizability; that is, the specific context of each situation requires nuanced investigation, and generalizability is unattainable if this context specificity is to be maintained. The very nature of a case study is one that implies some sort of restriction of sample, be it context, time, or population characteristics that define the range restriction. The idea of statistical generalizability does not seem to be appropriately applied to most qualitative case studies. Nevertheless, the concept of external validity is appropriately applied to such cases. For example, Robert K. Yin suggests that case studies can be viewed as generalizing to theory and not to populations. Thus, if a series of findings in a case can be understood in terms of the existing theory or literature, that constitutes a type of external validity. In a similar way, grounded theorists, such as Barney Glaser, who use a particular inductive method to create theory, could argue that their data generalize to theory to the extent that they uncover the very theory to which the data generalize! This discussion highlights the fact that often, one type (or one interpretation) of validity is counterpoised with another type, resulting in the need to balance one's research to intelligently maximize the type of validity seen as most pressing to the researchers. Thomas Cook and Donald Campbell, although focused on quasiexperimental research design, offer one of the most thorough examinations of competing and overlapping threats to validity, and this examination should form part of any broader study of validity.

Convergent (Divergent) Validity

The degree to which a present criterion or predictor is related logically and empirically to similar (convergent) or dissimilar (divergent) constructs provides improved evidence that the relationship researchers may find is theoretically defensible. The choice of other constructs that may be hypothesized to be convergent or divergent in nature with respect to what the researchers are studying is largely driven by the extant literature and/or theorizing. Thus, in an effort to bolster the arguments for the relationships researchers may uncover in case study research, they can usefully consider how well these findings agree or disagree with other aspects of the

case they are examining. They might, for example, expect that people who engage in high levels of positive organizational citizenship behaviors are likely to have higher levels of organizational commitment and lower levels of reported deviant or counterproductive workplace behaviors.

The Validity of Validity?

As evidenced in the preceding discussions, validity is complex in that the application of a particular type of validity may vary across qualitative and quantitative studies. Likewise, the nature of many case studies would be to call into question issues of some types of validity. There is, however, the more difficult situation posed by some research that questions the very applicability of validity as a "quality of research" issue.

It is particularly difficult to broach the discussion about validity issues and qualitative research that does not adhere to a positivist worldview. In these situations, questions of quality remain to be addressed, but perhaps not quite as didactically as when statistical and measurement evaluations are applied to quantitative research. Although some scholars do argue for a wholesale appropriation of validity concepts from the natural sciences, others argue about the complete lack of appropriateness of such standards of assessment to every research tradition. Even the terminology for particular aspects of what one might term validity may become different. For example, Lincoln and Guba offer the concepts of credibility, transferability, dependability, and confirmability for qualitative research, which could be seen as loosely paralleling issues of internal validity, external validity, reliability, and objectivity, respectively. Still others argue for the idea of relevance, which could be seen as related to the particular contribution offered through a piece of research, although this could be seen as an endorsement of using instrumentality of research as a quality assessment tool.

More important, there is more than just semantics at stake when one considers the potential problems found in applying ideas of validity across the different domains and traditions of research. For example, the idea that one can generalize the findings from a select group (i.e., a sample) to a larger population seems benign to the quantitative researcher who uses this premise often. To a feminist

researcher, this approach might be regarded as problematic, because it does not address individuals as individuals; neither does it seem to address the different effects of the social context upon such individuals. So, although case studies are often seen as providing limited generalizability, particularly from the statistical perspective, many scholars argue that the rich contextualization offered in qualitative case studies contributes to a greater ecological validity while at the same time not claiming to be statistically generalizable. Likewise, postpositive perspectives that argue for a multivocal representation of research topics (e.g., postmodernism or postcolonialism) could well find offensive the ideas of consistency found in discussions of validity. Critical theorists and sociologyof-knowledge specialists would likely question how it has come to pass that ideas of validity originating in positivist research have migrated to other research domains (and query what this tells us about social power). Clearly, the researcher's perspective shapes rather dramatically how he or she will approach the question and application of validity.

As with all research, case studies are a balancing act in terms of their strengths and their potential liabilities from a research design perspective. Consideration of validity in all its forms is a useful exercise regardless of the particular philosophic or traditional biases researchers may have. Through careful and open-minded examination of the relative strengths and weaknesses of a particular case and data, analytic perspective researchers are able to design and evaluate research with a view toward quality while appreciating the opportunities that research diversity offers them.

Critical Summary

This entry has explored the idea of validity in case studies. Validity is largely concerned with whether the claims, implications, and conclusions found in a piece of research can be justifiably made. In this respect, validity relates to legitimacy, quality control, and, to some extent, trustworthiness. With the enormous breadth of research designs, data, and analytic techniques found in the diverse domain of case study research, validity is difficult to concisely define, let alone prescriptively assess. This, however, does not render the consideration

of validity unimportant. Perhaps most effective is to keep in mind both the broad discussion contained in this entry as well as the commonly held quality control standards applicable to any given research tradition. In this manner, one may address concerns about validity within the legitimate boundaries of any given disciplinary practice while simultaneously preventing the inappropriate invocation of nonapplicable standards to a particular piece of research.

Anthony R. Yue

See also Analytic Generalization; Case Study and Theoretical Science; Case Study as a Methodological Approach; Credibility; Inductivism; Reliability; Statistical Generalization

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Verstehen

Verstehen is the German word for "understanding." It is indicative of a comprehension that is conceptually distinct and furthest away from explanation. Verstehen refers to participative understanding from the first person, from the case locals' point of view, in a never-ending process and taking into account history, culture, and previous understandings. Many research traditions have tried to get as close as possible to this ideal understanding, but it remains up to the case

researcher to define the kind of understanding for which she or he is aiming.

Conceptual Overview and Discussion

Many case studies do not stop at the description level or even at the representation level of a unit of analysis. Instead, they take an additional step and seek to shed light around the "how" and "why" aspects of the case study. This additional step may include designing an explanation or an understanding.

The controversy between the scholars involved in generating understanding and those defending explanation has a long history dating back to the 19th-century German philosopher Wilhelm Dilthey. To sharpen their differences, note that explanation is an abstract, outsider, law-based kind of knowledge. It tends to reduce the studied phenomenon to the set of major variables impacting it. On the contrary, understanding tends to open up (com-prehend means "take together") the phenomenon with all its horizons and gain knowledge from a participatory, first-person, humanly felt perspective. For Dilthey, there were two kinds of knowledge. The first, best suited for the natural sciences, was based on laws and spatiotemporal relationships. It sought explanation from the outside. Thus, knowledge for the human sciences (in Dilthey's words, spiritual sciences) was perceived as a knowledge that was too abstract and as a result detracted from important elements of human participants, such as their living and feeling nature as well as the notion that they belong to the very world whose study in which they were involved. As a result, Dilthey advocated for a second kind of knowledge, which he referred to as verstehen. Verstehen would be the full realization of this conception of "understanding."

Many research traditions have claimed to aim for what Dilthey has described as "understanding." The following paragraphs describe three main examples of the efforts of such traditions. They represent three ideal types of the meaning of understanding: (1) radical sociology based on the scholarship of Pierre Bourdieu, (2) interpretive sociology based on the ideas put forth by Max Weber, and (3) the hermeneutic tradition.

For the radical sociology of Bourdieu, *under-standing* means spotting the objective conditions

(the class origin, the sociological forces tensing the field to which the individual belongs, his or her route) that is producing the individual's discourse. For example, the subjective discourse of high school girls can only be understood as the result of the objective structures of both their own social and school spaces. In this conception, understanding requires the researcher to read the social structure through the interviews and to objectivize personal confidences into structural causes.

In the interpretive sociology of Weber, "understanding" lies in the connection between the subjectively lived meaning experienced by individuals and the big sociological and historical evolutions. An example of this is seen in Weber's effort to connect the values and fears of Calvinist individuals to the development of capitalism. In this approach, the researcher tries to see and feel like a local but then steps back to contemplate the whole process from the outside. These inside–outside and local–global connections make the approach very convincing.

Embedded within the hermeneutic tradition, understanding a text means understanding the questions this text has been crafted to answer. For a case study, this means understanding the problems tensing the organization studied. The researcher must acknowledge her precomprehensions. This means that the researcher checks how the case fits within her precomprehensions and, on the basis of the case "answer," she iteratively adjusts her precomprehensions in hopes of fostering a deeper understanding. The researcher conducts her analysis in a circular manner: She begins with a hunch; works in answers from the case; and, on the basis of these answers and readings of similar cases in her field, designs another hunch. In this never-ending, circular process, and being cautious to maintain her sensitivity, the researcher heads toward the fostering of an understanding of a singular case. This understanding is specially rich and connected, but it lacks the type of self-assurance derived from a study that follows the precepts of the natural sciences.

Although the form of understanding just described brings the researcher near *verstehen*, the full *verstehen* is always postponed, because each "understanding" threatens to freeze itself into an "explanation." The consequence for case study researchers is that they must engage in a conscious

decision concerning the nature of the understanding that they are seeking, specifically, how much explanation and how much *verstehen* they wish this understanding to hold.

Application

The case study researcher who seeks to get near *verstehen* must not aspire toward a panoramic or a God's-eye point of view; instead, he must aspire toward an emic position: to seek out interpretation from the insider's culture. Instead of designing constructs to translate abstract concepts, the researcher must first look at the *lifeworld* of participants—the world as lived by participants—with all its emotional and subjective depth. He would start with a phenomenological stance, bracketing his previous knowledge to be able to describe the phenomenon with as few prejudices as possible.

The description of the case study would not rest on measurements of variables but would focus on what Clifford Geertz (after Gilbert Ryle) termed thick description. Thick description is based on the idea that a researcher cannot simply describe gestures, colors, or words, because such descriptions are not understandable on their own. The meaning of such phenomena is embedded in a complex web of significations given by a local culture, and understanding them requires this comprehensive set of connections.

For example, Philippe d'Irbarne, in *The Logic of Honor*, studied the case of three similar factories in the same industry, based in the United States, The Netherlands, and France. Instead of comparing them along several dimensions, however, he looked for the specific history and culture of the three nations to enable the reader to understand the meaning of the social relations and the behaviors observed.

Another example, Vincent Crapanzano's *Tuhami, Portrait of a Moroccan*, focused on the case of a single Moroccan. In this study, he showed that the understanding of the life events of this Moroccan could be gained only from an insider's comprehension of the Moroccan culture. This detour—that of fostering an understanding as opposed to simply explaining thanks to a set of cultural variables—may seem tedious. However, instead of providing an explanation it provides a deeper understanding of the web of meaning from the participants' viewpoint.

It is important to note, however, that neither d'Irbarne's nor Crapanzano's studies provide a full *verstehen*. To reach this ideal, the researcher would need access to the "being-in-the-world" of those studied. Perhaps the literary talents required to do this would act to distance the researcher from the canons of academic writing.

Critical Summary

Verstehen is a kind of never-reached ideal for qualitative case studies in that the researcher can never fully understand the "other." Verstehen has been attacked for being too romantic, or nonscientific. Ultimately, verstehen is to be understood as an ideal or guide, dedicated to fostering a deep understanding in which one can evaluate the possibilities and limits of any method.

Research will always consist in part of explanation and distanced objective forms of understanding, but it is up to the researcher to decide the degree to which he aspires to reach *verstehen*. It is important to note that the kinds of knowledge a researcher generates through the case will differ on the basis of the degree to which the researcher comes close to *verstehen*. What is certain is that the academic community benefits from a variety of approaches—including those clearly on the *verstehen* end of the continuum—in enabling it to gain a more comprehensive understanding of a case or of a given phenomena.

Iean-Luc Moriceau

See also Hermeneutics; Interpretivism; Thick Description

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VISUAL RESEARCH METHODS

Case studies use visual research methods involving pictures or video to portray a selected aspect of a research question, construct, or process. In general, visual research methods are accompanied by text regardless of the researcher's philosophical standpoint. Images may not be the main research method, but when they are used in relation to other materials in the case study the visual knowledge will add to the depth of understanding. Because images or videos are always constructed, they are readily used within a multitude of critical analytical projects. The usage and diversity of analytical functions for images have grown exponentially in the last two decades. For example, interpretive analysis can be focused on the actual content of the image; alternatively, the production of the representation can be analysed and interpreted. The images can be used as a discussion forum to produce authorial or audience narratives related to the project. The images may function less centrally in the actual analysis of the case study but may serve more as a conversational plank to facilitate communication with participants about their experiences. The diversity of applications for visual research methods is expanding at an impressive pace across various disciplines.

Conceptual Overview and Discussion

Predictably, photographic and media studies have based their inquiry on visual research methods, but images are also commonly incorporated into anthropological, sociological, and cultural studies projects. The inclusion of visual approaches is becoming increasingly common within certain areas of psychology, such as community and social psychology. Moreover, interdisciplinarity is informing developments of visual research differently within each discipline, partly because of the diverse theoretical approaches inherent to each field and partly because of the varying degrees of acceptance and resistance within and between areas of study.

Depending upon the researcher's interpretive philosophy, the pictures or videos could function as a form of scientific realism to produce objective evidence, or they may be used within a constructivist framework as another angle of the interpretive framework from which to understand the case. The vast majority of researchers using image or video operate from a postmodern critical standpoint that frames the work as a socially constructed and received praxis. Even when a researcher plans to use images to a realist purpose, to be credible this use should still be qualified with a reflexive awareness of its limits in representing truth. At some point, all imagery is produced by someone, for some purpose, and that relative standpoint must be acknowledged.

Early social scientists rejected images as too subjective to be taken seriously within a scientific positivist paradigm. Anthropologists such as Margaret Mead asserted their usage of images for an objective purpose, not tainted with subjectivity. Within social sciences, early usages of images served a realist function. The researcher asserted that the photograph represented an actual thing without further interpretive context being required. During the postmodernity turn within the social sciences theorists have articulated the multiple layers of interpretation that can be wrought from visual methodologies. The current state of the dialogue acknowledges the varying degrees of representational truth that can be ascribed to images and their production.

Images are constructed from diverse practices, technologies, and knowledges; as such, they function to communicate about the social worlds that gave rise to them. They also are interpreted within different contexts, which means that the effects on diverse audiences can be analyzed. We can analyze visual images along several simultaneous planes of interpretation, including the construction of the image, reactions to the image, and the emotive aspect of the communication, to name a few.

Application

Methodologies are developed within the context of particular projects and are interwoven with theory. There is no best practice for visual research methods; there is only the platitude that the methods should serve the aims of the project. Thus, visual research methods within a case study must contribute to the objectives of the project to add to the flow of knowledge that is being produced or to serve the action needs of the participants in interactive research projects. Images serve different

methodological functions. How they are used depends upon the motivating research question. Both found and created visual representations can be employed for research purposes.

Found images serve different purposes than images that are expressly created for the current case study. Similarly, different lens of analysis can be used with the images. There are at least three foci that can be analyzed: (1) the production of the image, (2) the actual image, and (3) the audience impact. Each of these can be further critically appraised in terms of the social realm, the technological world that produces and receives them, and the compositional arena. Although the researcher can choose from among these critical standpoints for an interpretation, some fit better with the overall objective or perspective of the case study than do others. Researchers should reflexively document and report on their justification for inclusion and exclusion criteria. Better projects will illustrate how they are making an informed decision to focus on one particular approach over another for an image's illuminative contribution to the case at hand.

Found images or videos can be located in formal and informal venues. Formal repositories might include archives, art galleries, public art displays, architectural adornments, museums, or other locations where people have deemed the images or icons of a culture worthy. Popular culture is a rich repository of images that have been carefully cultivated to achieve an economic end, such as books, magazines, advertisements, television, music videos, or Internet-based representations. Informal source venues might include transitory representations, such as graffiti, or colloquial repositories, such as family picture albums or videos or personal Web pages.

Created images for a particular case study must be thoroughly thought through as to how and where they fit the purpose of the research. These can include photography, collages, doodles, drawings, or even sculpture. Creating the visual for the explicit purpose of the project carries a reflexive component that needs to be written into the project from the outset. How participants come to create the images is important for interpreting them.

Visual expression can communicate ideas in ways that language alone may be inadequate to convey. Images tap an analytical process that is distinct from narrative production. Language

barriers can be somewhat circumvented through image production. Similarly, alternate understandings of reality that cannot be translated to words can be expressed through imagery. Images may also facilitate an author's ability to access unspeakable realities in alternate ways that might facilitate communication about that phenomenon. Connected to this, the emotive reactions of audience can be explored from these images. These responses can themselves be studied pictorially, videographically, or through narrative production.

Images have particular value in engaging diverse populations in the research. Creating images and then speaking to them can inspire participants to represent and then articulate their reality in ways that would not typically be conveyed, recalled, or brought forward in a traditional interview. For example, in my research with the transition to mothering for pregnant adolescents, a 16-year-old created the image of a roller-coaster on two very thin supports. She spoke to this metaphor for her life, elaborating how those shaky supports could give way at any time and the whole thing would collapse.

Critical Summary

Visual research methods provide an opportunity to explore a research question from angles that differ from language-based forms of inquiry. The visual modality enables people to communicate their experiences in ways that might not otherwise be explored through language alone. Crucial to the usage of visual research methods in the field is a deep appreciation for participants' usual and accepted practice with images or video. Knowing how images are usually used in a given group can facilitate the incorporation of the technology into the case study, but it can also provide the context for the interpretation of the images.

Respecting the multiple layers of ethical practice is central to valuing the power of image-based inquiry to illuminate people's lived experience. The ethics of visual representation must be at the forefront of the researcher's mind at all times. Participants should be part of the process of visual representation, so this means finding ways to show participants the images being included in the case study. It also means discussions about emerging interpretations for the representations. For images created by participants for the project, the full disclosure of how the images will be used, and the extent to which this may compromise their anonymity, must be disclosed for full informed consent. Enabling participants to withdraw their produced images when they feel their anonymity is compromised is important. The researcher or research team must constantly reflect upon the ethics of representation and what that representation looks like for their case study.

Reflexivity at every phase of the case study, from planning through implementation and analysis, is part of building representational rigor into the project. The reflexivity should be part of the dissemination of the case study findings so that audiences can see transparency in the representational elements and can work with the information to critically evaluate the findings.

Colleen MacQuarrie

See also Audience; Audiovisual Recording; Constructivism; Dramaturgy; Intertextuality; Knowledge Production; Naturalistic Context; Phenomenology; Thick Description

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WEBS OF SIGNIFICANCE

In *The Interpretation of Cultures*, first published in 1973, anthropologist Clifford Geertz expressed his arguments for what the study of culture should be about:

Believing, with Max Weber, that man is an animal suspended in webs of significance he himself has spun, I take culture to be those webs, and the analysis of it to be therefore not an experimental science in search of law but an interpretive one in search of meaning. (p. 5)

Culture is not something imposed on people, argued Geertz, but it is created and re-created by them through their involvement in social relationships and through social interaction. The challenge for sociologists, anthropologists, and others concerned with understanding culture is not to take an approach that it is possible to treat culture as another social fact (thereby making a science of society possible in the way functionalists argued) but to venture into hermeneutics and interpret how the world is created, what cultural artifacts and symbols mean, and how aspects of culture provide insight into human nature. Social interaction, therefore, is essentially a transaction of meanings between people who are engaged in the production of social meaning.

Conceptual Overview and Discussion

Geertz's approach to culture owes much to Weber—in particular, his thinking on how people

make interpretations and attribute meaning to culture is influenced by Weber's idea of *verstehen* (understanding)—but his approach to hermeneutics was influenced by Paul Riceour's notion that culture is like a text that must be interpreted if we are to understand the human world, and the work of linguist Gilbert Ryle gave Geertz the idea of interpreting culture and writing about it in terms of thick descriptions. By focusing on *webs* of *significance*, Geertz proposed an anthropology that should be concerned with understanding meaning rather than behavior, what people actually mean when they say and do things rather than how they behave.

It is understanding, interpreting, and explaining what these webs of significance mean for people, to grasp the multiplicity of concepts and structures, and to interpret the symbols and complexity of everyday life, that Geertz saw as the essence of the anthropologist's task as ethnographer. Ethnography for Geertz was like reading a manuscript that was not written in any kind of immediately understandable language, and it was the ethnographer's job, he argued, to find the means to translate and interpret this language. Admittedly, Geertz agreed, the thick descriptions of the ethnographer are also interpretations of the ethnographer, and he argued that what anthropologists wrote about culture were essentially their interpretations of people's interpretations. In this, the quest for the anthropologist is to convey what people think they understand and mean. On occasion, anthropologists can transcend these local meanings and offer their own interpretation of what people do, say, and think, but essentially

what we are getting through ethnography is the natives' worldview, or at least their interpretations of the meanings that shape that worldview. Thick descriptions of the minutiae of everyday life offer insight into what society at large is really like, argued Geertz.

Application

One of Geertz's best-known writings that sets out his interpretive approach and allows us a glimpse of the webs of significance people spin, is "Deep Play: Notes on the Balinese Cockfight." Instead of being a superficial social activity, the cockfight, as it is played out in Bali, and if we set out to interpret its meanings, argues Geertz, allows us insight into deep aspects of Balinese culture, worldviews, and cultural ideas of self and society. Geertz spends a great deal of time describing how Balinese men prepare for cockfights—how they grooms their birds, the jokes they tell, the language related to cockfighting, the bets that are placed, the fights themselves, and so on. Through his thick description of the cockfight, Geertz's essay is a commentary of the nature of Balinese village life—and, ultimately, Balinese culture. It is a metaphorical account of Balinese culture as text: "a Balinese reading of Balinese experience," Geertz proclaims in his essay, "a story they tell themselves about themselves."

Anthropologists consider that although Geertz's description of the cockfight is rich and eloquent it nonetheless leaves much room for further interpretation. Perhaps this was Geertz's intention, because the essay is a superb example of interpretive anthropology, arguing that cultures are texts in need of deciphering. However, his essay still leaves the reader wondering why cockfighting takes place at all and why it is only men who engage in it. Furthermore, not all anthropologists agree with Geertz that their task is only to interpret cultures and make sense of their complex meanings.

Critical Summary

Despite these criticisms, the culture-as-webs-ofsignificance approach continues to have important currency for how we understand human interaction and human nature and how sociologists and anthropologists approach interpretivism as an aspect of their intellectual activities. Anthropologist Anthony Cohen's theorizing on the symbolic construction of community draws a little on Geertz, for example. However, the webs-of-significance idea of culture, entangled social relationships, and socially constructed worlds remains essential to our understanding of what the very nature of culture—and our relationship to it-means. What Geertz, and originally Weber, were drawing attention to is the fact that, although people create their cultures, which serve as ways of defining the world around them, they become entangled in them and cannot escape from them. However, they also have the ability to produce, reproduce, modify, and change their cultures. So, how do people make sense of the world around them? This idea of the world being defined by—and people being entangled in—culture is explored further in many sociological and anthropological writings, for example, that deal with the relationships between structure and agency, or with the dichotomy and relationship between culture and nature. In these approaches lies the essence of what sociology and anthropology should also be doing-interpreting, yes, but also offering critiques of what are taken-for-granted assumptions about the nature of the world.

Mark Nuttall

See also Case Study Research in Anthropology; Chicago School; Critical Sensemaking; Cultural Sensitivity and Case Study; Ethnography; Interpretivism; Langue and Parôle; Naturalistic Context; Thick Description

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WITHIN-CASE ANALYSIS

Within-case analysis in case study research is the in-depth exploration of a single case as a standalone entity. It involves an intimate familiarity with a particular case in order to discern how the

processes or patterns that are revealed in that case support, refute, or expand (a) a theory that the researcher has selected or (b) the propositions that the researcher has derived from a review of the literature and/or experience with the phenomenon under study.

Conceptual Overview and Discussion

Individual cases are of interest to case study researchers for both their uniqueness and their commonality with other cases. A central component of the analysis process in case study research is within-case analysis. The aim of within-case analysis is in-depth understanding and description of the phenomenon under study. Within-case analysis enables researchers to be thoroughly immersed in the data within a single case. This fosters the emergence of the case's unique attributes and patterns, before the researcher attempts to locate general patterns and themes that exist across all cases. In a multiple case study, each case is considered a single case. Each case's findings can then be used as information contributing to the entire study, but each case remains a stand-alone entity. This allows the researcher to understand the intrinsic aspects of a case study that are representative of other cases or because it is unique in its attributes.

Within-case analysis can result in classification (typology development), hypothesis generation, and theory development. The in-depth understanding that is generated in the analysis of a single case can suggest a preliminary theory or theoretical propositions, such as a typology of the focus of the study (e.g., types of immigrant experience). This, in turn, can provoke the researcher to conduct within-case analysis in other cases (single cases studied individually), or between individual cases (crosscase analysis) to further develop, validate, or refute the findings of the first within-case analysis.

Within-case analysis is both structured and focused. The focus can be on particular elements of the story that are revealed in the data, such as the context or the outcomes, or the processes that are revealed within the data, such as how decision making and sensemaking occurs in regard to a particular phenomenon. This focus is typically derived from one or more theories or hypotheses about the phenomenon under study. However, within-case

analysis may also be used to develop preliminary theory that can be validated in other cases.

Within-case analysis can be used initially to develop a stand-alone description of each case and then to conduct a cross-case comparison to identify what each case has in common, as well as what attributes about each case are unique. It can also be used to develop an initial coding tree. As other cases are analyzed, the initial coding tree is used as a means to identify what codes are shared with each new case and what data in the new cases cannot be encapsulated by the coding tree. It can also shape the selection of further cases to be analyzed. Within-case analysis can also occur after cross-case comparison, as a means of identifying typographical linkages or theoretical propositions that have been suggested in the comparative analysis. For example, cross-case comparison of several cases of parent-adolescent conflict might reveal that parents of more than one child were more likely to experience conflict with their adolescent child than parents of a single child. However, the cross-case comparison might not bring to light why this is so or how this occurs. Within-case analysis would permit the researcher to examine each case for evidence to support the reasons for such a linkage.

There are few definitive guidelines about how to conduct within-case analysis. Most authors conclude that the analytic procedures that are involved depend on the researcher's ability as a qualitative analyst. Robert Yin discussed the most common modes of within-case analysis as (a) comparing how the patterns evident in case data fit with those predicted in theory, the literature, or researchers' experience, and (b) looking for plausible and rival explanations within the case that could elucidate causal or interactive linkages within the phenomenon under study. Process tracing was described by Alexander George and Andrew Bennett as a means of conducting within-case analysis when the interactive effects within the phenomenon under study are unknown; that is, when no theory exists that would explain such effects. In such circumstances, researchers begin within-case analysis with a preliminary understanding of interactive effects based on their review of relevant literature and/or their personal experience with the phenomenon under study. The within-case analysis involves "poking" through the case to uncover variables or interactions that the researchers have not anticipated.

Similar to the analytic techniques used in qualitative research, within-case analysis begins with a rich/thick description of the data. However, the format of this descriptive portrayal may vary considerably. Within-case analyses can result in a graphic depiction, a narrative summary, a historical time line, a sequence analysis, an overview of the central attributes of the case, a matrix, or countless other ways to depict the essence of an individual case. As much as possible, the descriptive portrayal of the case should reveal the contextual nature of the case and the richness of the case data. The portravals of the case generated through within-case analysis are necessary as a data reduction strategy to deal with the daunting amount of data that case studies can generate. Data reduction in within-case analysis helps researchers focus on the data within the case that is most salient to the research question and theoretical or analytic framework. It is a way of organizing the data that allows for conclusions to be drawn. Displaying the data in a descriptive way (e.g., in table format) helps the researcher readily identify commonalities and differences in the case data.

Application

In reality, both within-case analysis and cross-case analysis often occur synergistically and interactively. Examples of the synergistic use of withincase analysis with cross-case analysis in three separate studies were described by Lioness Ayres, Karen Kavanaugh, and Kathleen Knafl. They provided the example of Knafl, who in her study of how families cope with illness in the family located shared depictions of the illness experience in each family and identified these as themes. Research questions were used as categories to look for within-case similarities. Then she created thematic profiles (narrative summaries) for each family member and family unit (within-case analysis). This was the basis for a cross-family comparison (cross-case analysis).

There are some noteworthy examples of withincase analysis and its applications within the published literature. Robert Yin's book of applications of case study research includes an example of within-case analysis in a study about computer implementation within a school. He described how vignettes were written to capture the key elements of each case. These were later used to compare the findings across cases. Kathleen Eisenhardt synthesized the few analytic strategies that are in existence (e.g., Matthew Miles and Michael Huberman's three phases of analysis) to produce a coherent road map for using inductive processes for withincase analysis that is intended to generate preliminary theory. For example, she recommended that different researchers could conduct the analysis for each type of data (e.g., interview, documentation, survey) within the case and then compare their analyses. She indicated that this would foster the comprehensiveness and rigor of the theory generation in within-case analysis.

Critical Summary

Within-case analysis enables the researcher to develop an in-depth understanding of elements of the phenomenon under study that are part of a pattern of meanings within the case. It can reveal elements that may be otherwise overlooked because identifying common themes across cases in cross-case analysis may dilute the findings of individual cases. It can lead the researcher to new insights that determine the later analysis of other cases or provoke new questions. However, within-case analysis can only be as good as the case the researcher describes. If the case is too brief, contains little complexity, or is merely confirming of what is already known about the phenomenon under study, then within-case analysis will likely produce few insights that will add to the field of study. Likewise, if the case is too dense, with too many mutually exclusive concepts, the contribution of within-case analysis to understanding the phenomenon under study may be obfuscated.

Barbara L. Paterson

See also Case Within a Case; Cross-Case Synthesis and Analysis; Interpreting Results; Process Tracing; Qualitative Analysis in Case Study; Quantitative Analysis in Case Study; Theory-Building With Cases

Further Readings

Ayres, L., Kavanaugh, K., & Knafl, K. A. (2003). Withincase and across-case approaches to qualitative data analysis. *Qualitative Health Research*, 13, 871–883.

Eisenhardt, K. (1989). Building theories from case study research. *Academy of Management Review*, 14, 532–550.

George, A. L., & Bennett, A. (2005). *Case studies and theory development in the social sciences*. Cambridge: MIT Press.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: Sage.

Yin, R. K. (2003). *Applications of case study research* (2nd ed.). Newbury Park, CA: Sage.

Yin, R. K. (2009). Case study research: Design and methods (4th ed.). Thousand Oaks, CA: Sage.

WRITING AND DIFFERENCE

Writing and Difference is the title of a compilation of Jacques Derrida's early essays introducing his philosophical project. Derrida argues in these texts that the traditional Western tendency to privilege speech as more authentic than writing is misguided. These works establish Derrida's deconstruction as a unique response to Western logocentrism (the tendency to assume text as an accurate representation of speech or able to capture all the meaning conveyed through speech).

Conceptual Overview and Discussion

Writing and Difference first appeared in French in 1967 and then in English, over a decade later, in 1978. A compilation of Derrida's philosophical essays from as early as 1959, Writing and Difference was released in the same year as Of Grammatology and Speech and Phenomena. Taken together, these three texts introduce Derrida's early approach to deconstruction, a school of thought that would have an enormous and controversial impact on philosophy, literary criticism and the humanities in North America and Europe for the next three decades.

Derrida argues that Western philosophy has been tainted by logocentric tendencies that privilege ideas over speech and the spoken word over the written word. In logocentrism writing is viewed as a deeply flawed outlet necessary for transmitting the thoughts of the author through space and time. In terms of the history of ideas, the logocentric bias can be traced all the way back to Plato

and his theory of the Forms. Plato believed that the spoken word is merely a symbol that refers to an ideal form that has an independent existence outside of language. Derrida argues against the logocentric bias and demonstrates that writing is much more than a vehicle for speech.

In the logocentric approach to meaning, speech is the original signifier of meaning. Although thoughts are primary, thoughts in themselves have no inherent method of transmission to the outside world and are therefore dependent on speech. Language in this view is a system of verbal signs that signify individual thoughts where the signifier (the spoken word) is always something separate and distinct from the signified (the original thought). Derrida explains that in logocentric thinking writing is derisively viewed as a signifier of a signifier. Derrida claims that logocentrism suffers from "the metaphysics of presence," whereby writing is viewed as a dangerous but necessary method for transmitting the spoken words of the author because the author is no longer present to respond to incorrect readings of the text and, by extension, the author's original and untainted ideas. Derrida rejects the idea that the written word derives its meaning only as a symbol of the spoken word dependent on the lingering presence of an original author.

Derrida coined the term differance, a play on words, which is meant to combine the notions of "to differ" and "to defer." In a logocentric text objective binary opposition is assumed possible because of the belief that each item in the opposition is a distinct and self-sufficient entity in no way influenced or contaminated by its other. Through these assumptions logocentric texts can safely privilege one side of the opposition over the other. Derrida's difference captures his argument that signs get their meaning through how they differ in space from one another, but the specific meaning is constantly deferred because meaning cannot be discerned independent of a relationship between multiple signs. Because of the infinite possibilities of differences between the infinite possibilities of other signs, meaning is endlessly deferred; that is, words have meaning only because of contrast effects with other words. Black means what it does only by contrast with white. Derrida's differance is a clever swipe at the logocentric privileging of speech over writing because it is only in the form of a written word that the concept can be appreciated as something other than the word *difference* (which is how the term would sound when spoken).

Application

An application of Derrida's ideas from Writing and Difference in case study research may be done through using Derrida's concept of difference by radically rereading cases and voices and recognizing the arbitrariness of interpretation. Derrida demonstrates that all signifiers refer to their meaning through other signifiers. The text cannot control the reading given. Deconstruction recognizes that there is no one meaning; identity comes through difference. Case study researchers inspired by Derrida need to listen closely to the voices in their cases but must feel free to interpret and deconstruct the concepts that emerge from rigorously reading a case. Robert Cooper observes that logocentric thinking is so ingrained in the psyche of Western researchers that they naturally start from the "normal" case and go on to other cases that can be defined as other than normal. Derrida's concept of difference challenges researchers to rethink these biases.

Critical Summary

To summarize, Derrida breaks with Western logocentrism in arguing that the meaning of a sign (written or spoken) can be discerned only through exploring how it differs from another sign and cannot be understood on its own. Researchers who are mindful of Derrida put a great emphasis on

questions of ethics and the role undecidability plays in writing and research. Ethics in Derrida are an undecideable moment, like differance, because the moral actor needs to make an immediate choice, even though there will always be compelling issues to force one to rethink one's position. Conclusiveness in ethical dilemma is endlessly deferred, just like meaning, because all the time in the world would be insufficient to fully think through the impact one's actions could have on the endless stream of others in the world. Researchers need to write their cases even as they are mindful of the risk in quashing the voice of the other. The essential task is to learn to write and read cases differently.

David Weitzner

See also Deconstruction; Logocentrism; Postmodernism

Further Readings

Cooper, R. (1989). Modernism, postmodernism and organizational analysis 3: The contribution of Jacques Derrida. *Organization Studies*, 10, 479–502.

Derrida, J. (1978). Writing and difference. Chicago: University of Chicago Press.

Derrida, J. (1981). *Positions*. Chicago: University of Chicago Press.

Derrida, J. (1998). *Of grammatology: Corrected edition*. Baltimore: Johns Hopkins University Press.

Rhodes, C. (2000). Reading and writing organizational lives. *Organization*, 7, 7–29.

Weitzner, D. (2007). Deconstruction revisited: Implications of theory over methodology. *Journal of Management Inquiry*, 16, 43–54.

Appendix

The Fun and Value of Case Study Research

For this section we asked our contributors and other scholars involved in case study research to tell us, from their perspective, what they enjoy about engaging in case study research and what value they see in the approach. We hope that it will encourage readers to further explore case study research.

The Stories We Tell

We live by the stories we tell each other. Stories tell us how things happened, why things are as they are, and what to expect if we play the role of hero, or good parent, or responsible citizen. Stories let us live a hundred different lives, walk in curious worlds, and hope alongside characters we would be pleased to call companions of the heart. Stories let us see the good in others, acknowledge the bad, share the triumphs of strength and the suffering that comes from error. So it is with cases. To be a good case writer is, first and foremost, to be a good storyteller. When crafting a case you've got an opportunity not only to describe the dusty and cobweb-filled facts of a situation but to tell a living story, creating a memorable event that lets someone else live—if ever so briefly a different life; to let them be part of a happening that shows the good, or the bad, or the foolishness of business—and yes, to show the quiet courage that's always part of the human condition. As a case writer you create examples, you teach and explain, and you tell others what it was like when you were there. But above all, when you tell these stories you have a chance to argue for the right, to illustrate the good, to praise quiet courage, and especially to show others why they should care.

Feasting on the Benefits of Case Study Research

I enjoy getting involved in foreign social lives while carrying out case studies with qualitative methods. By conducting narrative interviews, one gets in touch with absorbing stories and experiences interwoven with emotions that bring the stranger and social researcher closer together. Having the chance to learn about the life of normally distant persons and about different social worlds is exciting. Where else can we become a part of foreign social worlds and have the chance to become aware of the unexpected? While analyzing and reflecting on the data of case studies, researchers can also learn a bit about their own lives. This is especially true if they bear in mind that they are neutral but have some impact on the research progress. Alongside self-reflexivity about our own perspective and our role in the research process, I find the relative openness of some qualitative research methods used in case study to be stimulating. This is because handling the unexpected is like a playful game of further adapting and developing the methods during the research. These appealing features of qualitative case studies are regrettably accompanied by some drawbacks. Conducting case studies is also a strenuous and sometimes frustrating activity. This is because it is hard to follow through on previous plans, and initial expectations can be troubled by unexpected incidents. Sometimes it is very difficult to get in touch with interviewees or get involved in foreign social environments. Moreover, without doubt, analyzing and writing case study research can be frustrating if one suffers from writer's block. However, for me it has always been worthwhile to face up to these difficulties and to feast on the benefits of case study research.

Jim Tolliver

Lars Meier

Satisfaction Through High Commitment and High Involvement: The Global Companies Development Programme

A longitudinal multiple-case study design was used to undertake an innovative evaluation of the Global Companies Development Programme (GCDP), a public policy initiative provided by Scottish Enterprise, the regional development agency in Scotland, United Kingdom. The program aims to help Scottish small- and medium-sized enterprises internationalize. This qualitative case study design was an alternative approach to evaluation that is often survey based, and aimed to look deeply and broadly at the impact of the program over time, capturing new insights and the complex and dynamic process of firm internationalization. The study involved both in-depth interviews with CEOs of firms participating in the program over 3 years and the collection of performance-related data each year. In addition, access was gained to expertise within Scottish Enterprise (program executives, account managers, internal evaluation) and archival records of the firms that provided corroboration of the interviews. The evaluation involved feedback through regular monthly meetings with the GCDP executives, as well as formal presentations and twice-yearly reports. The case study method was supported by an action research context and process approach to evaluation, where regular feedback and meetings formed part of the development of the evaluation and program.

This case study approach involved high commitment by both the researchers and the policy-makers; it was costly and time-consuming. However, it was able to unravel chains of events, entrepreneurs' responses and outcomes at the enterprise level, and provide deep understanding of long-term impacts of the program.

Margaret Fletcher

The Creative Potential of Case Studies

We humans seem to live our lives as stories. Stories are understandable and yet they preserve nuance and complexity. When we recount stories well, they are always accompanied by some giving of context, yet the context itself does not capture the essence of the story. Just as good fiction involves a tension between a sense of the inevitable and the simultaneous potential of the unexpected,

case studies offer us the thrill of the possibility of chance constrained by tight narration. Thus, there is a certain situated freedom to be found in the crafting and the analysis of cases in all their different forms.

This freedom is what Sartre referred to as committed literature when he described an existentialist approach to writing plays and novellas. What if this bold idea, that the content *and* the form *and* the intent of our work define the story we tell, was considered central to our work as researchers? Of course, many researchers do believe and commit themselves to such an ideal, yet relatively few seem to talk openly about this aspect of the crafting of their work and fewer still openly mentor their student apprentices in such.

Surely the artistic component of choosing how and what to reveal (or conceal) in our research has meaning, if for no other reason than to reaffirm that we have some freedom of choice in the matter. I wonder about the unknown number of insights that we have rejected and lost because they were written differently than convention dictates or were seen as not being immediately and directly applicable to the existing literature. In a world of constraints, case studies offer researchers creative potential in terms of form and content; a space where storytelling is valued, preserved, and interrogated. While this freedom carries with it profound responsibility, at its core it is also what makes case study work a whole lot of fun to do.

Anthony R. Yue

The Joy and Privilege of Collaboration

When I was an undergraduate student, the most exciting thing to me about sociology and anthropology was reading case studies. As a young, white, middle-class Canadian these readings opened my imagination to other social worlds. The early days of urban sociology in Chicago and publications like the Polish Peasant in Europe and America, the many symbolic interactionist studies of deviance, and social anthropological monographs on distant cultures enticed me into becoming a professional sociologist. Since writing my PhD dissertation many years ago on west coast commercial salmon fishers, and spending 5 months on a commercial fishing boat, I have conducted participant observation research. Today I am researching the creative process among visual artists. All of these projects have given me the great personal pleasure of meeting many hardworking, kind, and exciting people who have opened my eyes to the great social diversity of the human enterprise. Doing case studies takes research out of the laboratory and into everyday lived experience where researchers and researched become collaborators, share knowledge, and strive toward building a better world.

Janet M. C. Burns

Contributors' Favorite Case Studies

In this section we asked contributors to tell us about their favorite case studies. In order to encourage a range of responses we didn't offer any criteria for choosing cases. They could be the most instructive, the most readable, the most ground-breaking. As you will see below, most contributors nominated those cases that were a combination of all three. We hope they will provide readers with clues and insights to good case writing.

Markku Jahnukainen writes:

My all time favorite is:

Shaw, C. R. (1930). *The Jack-roller: A delinquent boy's own story*. Chicago: University of Chicago Press. It is still relevant.

This article is groundbreaking in my own field (special education) because it defines the survival of high-risk adolescence:

Todis, B., Bullis, M., Waintrup, M., Schultz, R., & D'Ambrosio, R. (2001). Overcoming the odds:
Qualitative examination of resilience among formerly incarcerated adolescents. *Exceptional Children*, 68, 119–139.

Clem Adelman's favorite cases include:

Stake, R. E. (1986). *Quieting reform*. University of Illinois Press.

House, E. (1988). Jesse Jackson & the politics of charisma: The rise and fall of the PUSH/Excel program. Boulder, CO: Westview Press.

Becker, H. S. (1982). *Art worlds*. Berkeley: University of California Press.

Gaventa, J. (1980). Power and powerlessness: Quiescence and rebellion in an Appalachian valley. Urbana: University of Illinois Press.

Any documentary films by Fred Wiseman or by Roger Graef.

Lars Meier lists his favorite case studies as:

Wacquant, L. (2006). Body & soul: Notebooks of an apprentice boxer. Oxford, UK: Oxford University Press. Waquant's ethnographic study explores the social structure within a boxing gym in a poor black neighborhood in Chicago. The author participates in the gym and reflects on his own experiences and body changes. The study is an excellent read and is important because it demonstrates the existence of social organizations and networks in a neighborhood mostly stereotyped and equated with social disorganization and anomie.

Whyte, W. F. (1955). Street corner society: The social structure of an Italian slum. Chicago: University of Chicago Press.

Whyte's study is a lively participant observation of street gangs in Boston.

Kam Jugdev writes:

I have found three classics to be useful in research methods courses. The Eisenhardt (1989) paper offers an eight-step framework on the process of building theory from case study research. The paper also discusses different perspectives on case study research. Gersick's (1988) paper exemplifies unconventional case study research, the time-intensive nature of case study analyses, and how the approach can lead to a new model of group development, albeit unexpected. Using these two articles along with excerpts from Yin's book has enabled me to draw out different aspects of case study research in group discussions.

Eisenhardt, K. (1989). Building theories from case study research. *Academy of Management Review*, 14(4), 532–550.

Gersick, C. J. G. (1988). Time and transition in work teams: Toward a new model of group development. *Academy of Management Journal*, 31(1), 9–41.

Yin, R. K. (2009). Case study research: Design and methods (4th ed.). Thousand Oaks, CA: Sage.

Shripad Pendse singles out the following teaching case for attention:

"Dashman Company" is just one and one-half pages long, but it is endlessly fascinating and versatile. Written in the 1940s, it continues to be included in anthologies today. Fritz Roethlisberger, of Hawthorne studies fame, devotes several pages to the case in his wonderful biography, *The Elusive Phenomena*. Harvard Business Review surveyed its readers to see how they analyzed the problems in the case. The series of three articles published in 1997 was based on 1,400 responses to the survey.

The case describes the actions of a newly appointed vice president of purchasing, Mr. Post, who is an experienced purchasing executive but a newcomer to Dashman Company. He has been recruited because of shortages of raw materials that may occur during the war. The plant managers traditionally have been given wide autonomy in making their decisions, and the peak buying season is only 3 weeks away.

Mr. Post sends out letters to the 20 purchasing managers of widely dispersed plants, instructing them to "clear" with him any purchase contracts over \$10,000. "I am sure that you will understand that this step is necessary to coordinate the purchasing requirements of the company in these times," he tells them.

Almost all the managers write to express their agreement, but almost nobody follows up by advising Mr. Post of any forthcoming orders over \$10,000. Reports from the plants indicate that the plants were busy and "the usual routines for that time of year were being followed."

The discussion thus turns to how effective a manager Mr. Post has been, and why the purchasing executives did not seem to obey Mr. Post's directions.

Students (and the experienced managers surveyed by *HBR*) focus on three issues: Mr. Post's timing was wrong (just before the peak buying season); his medium of communication was wrong (writing rather than personal contact); and he was going against the tradition of autonomy enjoyed by the plant managers. Some students also wondered whether the managers began to split orders so that they remained under \$10,000.

While these comments are not wrong, they miss some deeper issues. This is what makes the case so interesting to teach. Here are three of them.

First, was there a need for *any* action on Mr. Post's part? While there was some fear that raw materials might be in shortage, the fact that usual routines were being followed suggests that the shortages had not actually materialized. What could Mr. Post have done to find out if there really were shortages, and if so in what materials?

Second, even if the shortages had been real, Mr. Post's solution did not make sense. It could give him only data that were the opposite of what he needed—about materials that were being ordered, and thus not in short supply.

Finally, the case illustrates the use of various sources of power. How can a manager, especially a new one, generate power? Use of command did not work for Mr. Post. Perhaps if he asked which raw materials were in short supply and found ways to obtain them, he would discover expert and referent sources of power and be much more likely to elicit cooperation from his subordinates.

Saville Ian Kushner's best cases:

Kennedy, A. L. (2000). On bullfighting. London: Yellow Jersey Press.

Read this and you will learn that a case researcher's self-knowledge is a critical resource for understanding the case: see how Kennedy's failure to take her own life counterpoints with the matador's persistent flirtation with death; see how the self can be used to understand and not displace empathetic representation of others. Look at this case to learn the overriding importance of recording detail.

Lewis, O. (1965). *La vida*. New York: Vintage. Case study offers what I think of as the "democratic inversion." We know a great deal about how the citizen fits into our social programs; we know too little about how social programs fit into people's lives. Lewis's classic study of a family living in poverty in Puerto Rico and New York gives us a strong sense of what that inversion can look like.

Another good case is the movie, *The Third Man*. It shows the sweep from personal struggle and pathos to institutional, political, and even geopolitical contexts that case study calls for—not just good stories but *comprehensive* and *analytical* stories. This film leaves you with an analysis of how morality (what this is a case *of*) has to be contextualized—and how context imposes itself as an ever-present and overriding contingency. It also reminds us of something that case study so often reveals—the impossibility of disentangling success from failure.

David Michael Boje's favorite case studies:

Ballinger, J., & Olsson, C. (Eds.). (1997). Behind the swoosh: The struggle of Indonesians making Nike shoes. Uppsala, Sweden: Global Publications

- Foundations and International Coalition for Development Action.
- Roy, D. F. (1959). Banana time: Job satisfaction and informal interaction. *Human Organization*, 18, 158–168. Retrieved April 18, 2009, from http://www .chass.utoronto.ca/~salaff/Roy.pdf
- Chandler, A. D., Jr. (1998). Strategy and structure: Chapters in the history of the American industrial enterprise. Cambridge: MIT Press. (Original work published 1962)
- Sinclair, U. (1906). *The jungle*. Retrieved April 19, 2009, from Internet Archive: http://www.archive.org/search.php?query=title%3Athe%20jungle%20creator%3AUpton%20Sinclair%20-contributor%3Agutenberg%20AND%20mediatype%3Atexts%20
- Marx, K. (1850). Capital volume one: Chapter 10. The working day. Retrieved April 19, 2009, from http://www.marxists.org/archive/marx/works/1867-c1/ch10.htm

Dvora Yanow's top picks for case studies are:

- Allison, G. (1971). Essence of decision. Boston: Little, Brown.
- Blau, P. (1963). The dynamics of bureaucracy. Chicago: Chicago University Press. (Original work published 1955)
- Kaufman, H. (2005). *The forest ranger*. Washington, DC: Resources for the Future. (Original work published 1960)
- Kunda, G. (1992). *Engineering culture*. Philadelphia: Temple University Press.
- Lipsky, M. (1980). *Street-level bureaucracy*. New York: Russell Sage.
- Selznick, P. (1949). TVA and the grassroots. Berkeley: University of California Press.

Sierk Ybema's list includes:

- Gouldner, A. W. (1954). *Patterns of industrial bureaucracy*. Glencoe, IL: Free Press.
- Young, E. (1989). On the naming of the rose: Interests and multiple meanings as elements of organizational culture. *Organization Studies*, 10(2), 187–206.
- Collinson, D. (1992). Subjectivity, masculinity and workplace culture. Berlin: Walter de Gruyter.
- Kunda, G. (1992). *Engineering culture:* Control and commitment in a high-tech corporation. Philadelphia: Temple University Press.
- Dahler-Larsen, P. (1997). Organizational identity as a "crowded category": A case of multiple and quickly shifting "we" typifications. In S. A. Sackmann (Ed.), Cultural complexity in organizations: Inherent contrasts and contradictions (pp. 367–389). London: Sage.

Frans H. Kamsteeg's picks for best cases:

Jankowski, M. S. (1991). *Islands in the street: Gangs and American urban society*. Berkeley: University of California Press.

Detailed case study of the organization of urban street gangs in the context of American society.

Kunda, G. (1992). *Engineering culture:* Control and commitment in a high-tech corporation. Philadelphia: Temple University Press.

Case study on the impact of culture change politics on the daily life of employees in a Silicon Valley company.

Watson, T. J. (1994). In search of management. Culture, chaos & control in managerial work. London: International Thomson Business Press.

Ethnographic case study of managers struggling over identity in an organizational change process.

Kamsteeg, F. H. (1998). Prophetic Pentecostalism in Chile: A case study on religion and development policy. Lanham, MD, and London: Scarecrow Press. A shop-floor study of the interplay of church and NGO politics of cultural change.

Some of Marilyn Porter's favorite case studies:

In the early 1970s there was a dawning of feminist awareness about how male centered all the disciplines were. In this context, I came across *Guests of the Sheik: An Ethnography of an Iraqi Village* (New York: Doubleday, 1969) by Elizabeth Warnock Fernea. She had gone to a remote village in southern Iraq as the wife of a "proper" male anthropologist. Bored, she began to spend time with the sequestered women in the households. The resulting book opened my eyes, and those of many others, to the possibilities of focusing on women's everyday lives and the advantages of building on shared identities and problems.

Another moment of awakening came when I read *Female Sexualization:* A Collective Work of Memory (London: Verso, 1987) by Frigga Haug et al. This penetratingly honest collective examination of themselves and their bodies opened up a whole new way of looking at ourselves as "cases."

On this same theme of focusing on individuals as cases and looking at different forms of representing experience, I suggest *The Woman Who Mapped Labrador: The Life and Expedition Diary of Mina*

Hubbard (Montreal: McGill-Queen's University Press, 2005) by Roberta Buchanan, Anne Hart, and Bryan Greene. In this case study of one remarkable woman, the three authors have combined and triangulated different skills and different kinds of sources—the diary and letters of Mina Hubbard, documentary and interview evidence about her life after her famous expedition, and the scientific mapping and topographical context of her trip.

Hezekiah Uba Orji points out that

One case that is on the Social Science Research Network's (SSRN) Top Ten download list on "Bad Leadership" is:

Ajuogu, M., & Orji, Z. (2004). Leadership conflicts in an African society: The case of Ndigbo in Nigeria. IACM 17th annual conference paper. Retrieved April 19, 2009, from Social Science Research Network Web site: http://ssrn.com/abstract=602703

Janet M. C. Burns recommends:

Barker, E. B. (1984). The making of a Moonie: Choice or brainwashing? Oxford, UK: Blackwell.

Becker, H. S. (1973). Outsiders: Studies in the sociology of deviance. New York: Free Press. (Earlier edition published 1963)

Cohen, S. (1972). Folk devils and moral panics: The creation of the Mods and Rockers. Oxford, UK: Blackwell. (Earlier edition published 1972)

Gans, H. J. (1962). The urban villagers: Group and class in the life of Italian-Americans. New York: Free Press.

Haley, S. D., Fukuda, C. (2004). Day of the Dead: When two worlds meet in Oaxaca. New York: Berghahn Books.

Leyton, E. (1984). *The myth of delinquency: An anatomy of juvenile nihilism*. Toronto: McClelland and Stewart. (Earlier edition published 1979)

Whyte, W. F. (1965). *Street corner society*. Chicago: University of Chicago Press. (Earlier editions published 1943, 1955)

Willis, P. (1981). Learning to labor: How working class kids get working class jobs. New York: Columbia University Press. (Earlier edition published 1977)

Tony Elger's top five case studies:

The possibilities are endless, so I have decided to be parochial and select a top five from my own area of specialist knowledge, namely British/ European workplace studies, especially those of management—worker relations in modern manufacturing. Even there I was spoiled for choice, but nominate as established or emergent classics:

Beynon, H. (1973). Working for Ford. Harmondsworth, UK: Penguin.

This is an influential study of life on the line in the Ford factory at Halewood, Merseyside, that explores shop-floor responses to intense assembly line production and management's attempted marginalization of union representation. At the heart of the book is an analysis of shop-steward organization and activity in the plant, drawing out the pressures and dilemmas they faced and the efforts required to sustain and develop a strong workplace trade unionism from a complex matrix of local working class traditions and day-to-day worker survival strategies. This also provides the prism through which analyses of wider relations are developed, between different levels of corporate management and different levels and strands of trade unionism.

Burns, T., Stalker, G. M. (1994). *The management of innovation* (3rd ed.). Oxford, UK: Oxford University Press.

The employees in this study are primarily managers and technical staff rather than the manual workers considered in my other choices, but it is a stimulating and illuminating study for all those interested in power relations and the internal politics of organizations. The book is based on a series of case studies of manufacturing (mainly electronics) firms and looks particularly at the management of technical innovations and the role of R & D departments. The cases were researched in varied depth and detail and are analyzed through a cumulative series of cross-cutting comparisons that defy easy codification. The authors begin by constructing an influential contrast between mechanistic and organic forms of organization, then deconstruct this contrast by focusing on the varied micropolitical dynamics and diverse outcomes of power relations between top managers and varied cliques, cabals, and departmental clusters of middle management.

Delbridge, R. (1998). Life on the line in contemporary manufacturing: The workplace experience of lean production and the "Japanese" model. Oxford, UK: Oxford University Press.

This is a detailed participant observer ethnography of two workplaces in the United Kingdom: a Japanese-owned consumer electronics plant and a European-owned auto components plant. It develops a comparative analysis of the interplay between management controls and worker cooperation, compliance, and dissent in the two plants, and emphasizes contrasting management capacities to control sources of uncertainty in the two factories ramified through contrasting patterns of supervision and the distinctive individual and collective survival strategies of workers.

Durand, J.-P., & Hatzfeld, N. (2003). *Living labour: Life on the line at Peugeot France* (D. Roberts,
Trans.). Basingstoke, UK: Palgrave Macmillan.

This is a study that demonstrates that there are still valuable new things to say about a well-researched topic, namely line work in the auto industry. In particular, it combines a fine analysis of the negotiation of work activity and effort on

the line with a sophisticated discussion of intergenerational relations among workers, based on a combination of participant observation and other case study methods.

Westwood, S. (1984). All day, every day: Factory and family in the making of women's lives. London: Pluto. One of a set of influential British socialist-feminist ethnographies of women factory workers produced in the 1980s, this book is based on a yearlong participant observation study of women workers in a hosiery factory. It analyzes the ways these workers experience management-worker relations and the labor process, the role of maledominated trade unionism, and the relationships between paid work and family relations. Key themes concern the complex interplay among class, gender, and ethnicity in the patterning of experiences and responses, and the relationship between resistance and celebration in shop-floor culture.

Selected Bibliography: Case Study Publications by Contributing Authors

In this section we want to showcase the range of case study research that has been published by our contributors and provide a rich source of references for further research.

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 M. Fruin, & P. S. Adler (Eds.), Remade in America: Transplanting and transforming Japanese management systems (pp. 75–116). New York: Oxford University Press.
- Adler, P. S. (2006). Beyond hacker idiocy: The changing nature of software community and identity. In C. Heckscher & P. S. Adler (Eds.), *The firm as a collaborative community: Reconstructing trust in the knowledge economy* (pp. 198–258). New York: Oxford University Press.
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